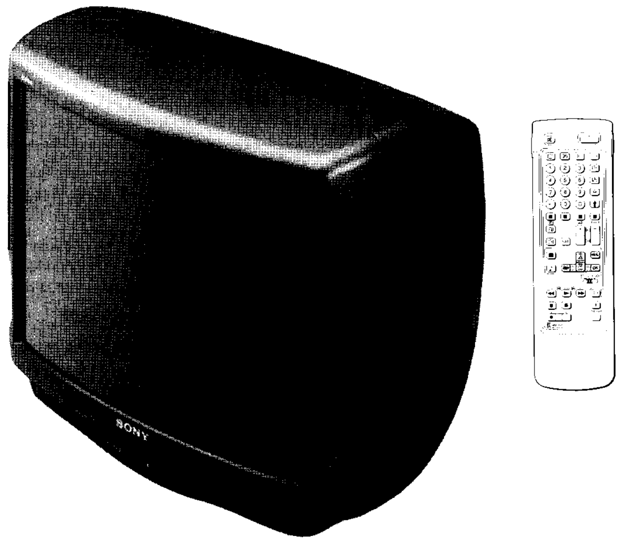
SERVICE MANUAL

AE-2B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-B2923B	RM-831	French	SCC-G57E-A				



MICROFILM

TRINITRON® COLOR TV

SONY®

KV-B2923B

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
French	B/G/H, D/K L, I	GERMAN NICAM Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	French
Power Consumption	121W

SPECIFICATIONS

Picture Tube	Super Trinitron Approx. 72 cm (29 inches) (Approx. 68 cm picture measured diagonally) 110° -deflection

Input/Output Terminals

[REAR]

⊡-1 21-pin Euro connector (CENELEC standard)
- inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

⊟2/⊟S 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

⊖ Audio outputs (variable) - phono jacks

[FRONT]

⊟3 Video input - phono jack
⊖ Audio inputs - phono jacks
⊟S3 S video input 4-pin DIN
Ω Headphone jacks : stereo minijack

Sound output	2 x 12W (RMS) 2 x 30W (Music)
Power requirements	220 - 240V
Dimensions(WxHxD)	Approx. 607x666x830 mm
Weight	Approx. 48.5kg
Supplied accessories	RM-831 Remote Commander (1) IEC designation R6 battery (1)
Other features	NICAM , FASTEXT.

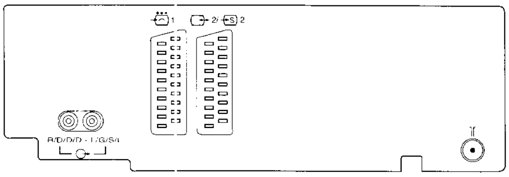
[RM-831]

Remote control system	infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65x225x21 mm (w/h/d)
Weight	Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

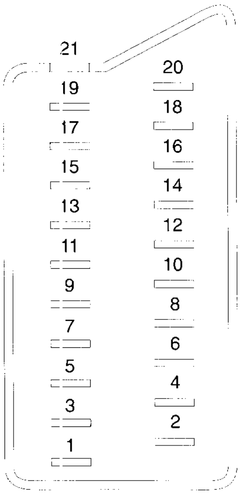
Item \ Model name	KV-B2923B
Pal Comb	OFF
PIP	OFF
RGB Priority	ON
Woofer Box	OFF
Scart 1	ON
Scart 2	ON
Front in (3)	ON
Scart 4	OFF
Dyn. Convergence	OFF
Projector	OFF
AKB in 16:9 mode	ON
Norm B/G	ON
Norm I	ON
Norm D/K	ON
Norm AUS	OFF
Norm L	ON
Norm SAT	OFF
Norm M	OFF
Nicam Sys. L	ON
Language Preset	Francais

21 pin connector (⊖1 ⊖2/⊖4)

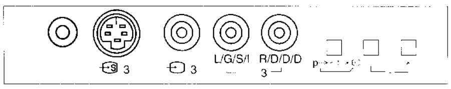


Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground(blanking)	
15	○	–	–	Red input	0.7 ± 3dB, 75 ohms, positive
	–	○	○	(S signal) croma input	0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground(video output)	
18	○	○	○	Ground(video input)	
19	○	○	○	Video output	1V ± 3dB,75ohms,positive sync: 0.3V(-3+10dB)
20	○	–	–	Video input	1V ± 3dB,75ohms,positive sync: 0.3V(-3+10dB)
	–	○	○	Video input Y (S signal)	1V ± 3dB,75ohms,positive sync: 0.3V(-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz



Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.



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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ! ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLIMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE. LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTEMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÈCURITÈ !!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ! SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

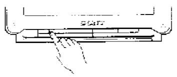
SECTION 1
GENERAL

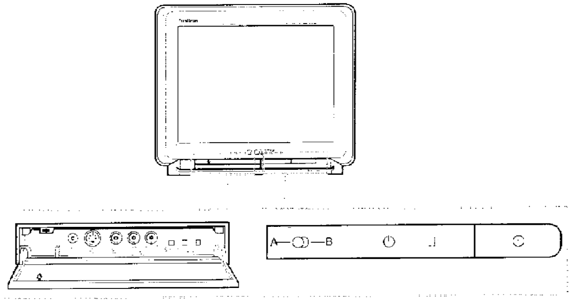
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Overview

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

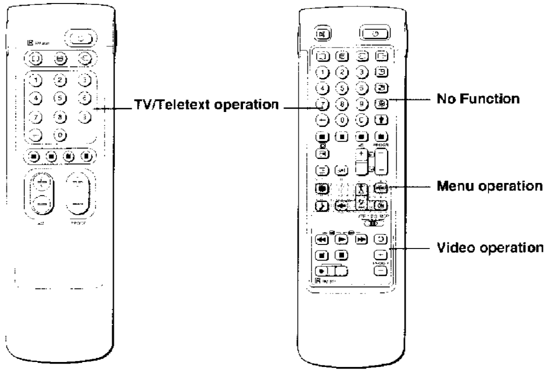
TV set - front





Symbol	Name	Refer to page
⏻	Main power switch	13
⏻	Standby indicator	13
A-◯-B	Stereo A/B indicators	15
∩	Headphones jack	20
→S3, →◯ 3, →◯ 3	Input jacks (S-video/video/audio)	20
P→◢→◯	Function selector (Programme/volume/input)	13
− +	Adjustment buttons for function selector	13

Remote Commander RM-831



Note
The SAT button does not operate with this TV.

Simple side

Full-Function side

TV/Teletext operation

Symbol	Name	Refer to Page
🔇	Mute on/off button	14
⏻	Standby button	13
▭	TV power on/TV mode selector button	13
▤	Teletext button	14
→◯	Input mode selector	14
◯→	Output mode selector	21
1,2,3,4,5,6, 7,8,9, and 0	Number buttons	13
-/--	Double-digit entering button	13
C	Direct channel entering button	10
◢ +/−	Volume control button	13
PROGR +/−	Programme selectors	13
▭ ▭	Teletext page access buttons	17
●	Picture adjustment button	15
♪	Sound adjustment button	15
⊕	On-screen display button	14
▤	Teletext hold button	17
◷	Time display button	14
■■■■	Fastext buttons	17

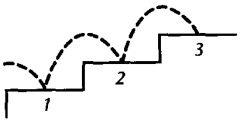
Menu operation

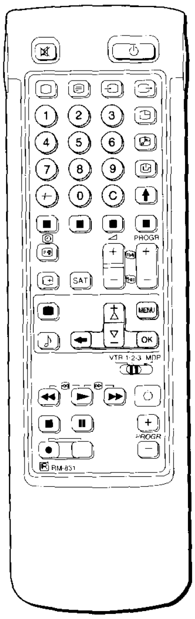
Symbol	Name	Refer to Page
MENU	Menu on / off button	7
∧+/∨−	Select buttons	7
OK	OK (confirming) button	7
←	Back button	7

Video operation

Symbol	Name	Refer to Page
VTR1/2/3 MDP	Video equipment selector	22
◀◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/−	Video equipment operation buttons	22

Step 3 Tuning in to TV Stations





Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 60 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

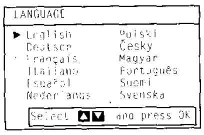
- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

❶ Choose a language

1 Depress ⏻ on the TV.
The TV will switch on. If the standby indicator on the TV is lit, press ○ or a number button on the Remote Commander.

2 Press the MENU button.
The LANGUAGE menu appears. (See Fig. 1)

3 Select the language you want with △+ or ▽–, and then press OK.

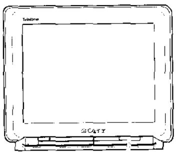


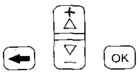
LANGUAGE

▶ English — Polski
Deutsch — Česky
Français — Magyar
Italiano — Português
Español — Suomi
Nederlands — Svenska

Select ▲▼ and press OK

Fig. 1.





❷ Display the Menu

Press the ⬅ button.
The main menu appears. (See Fig. 2)

Now, choose one of the methods described overleaf:

"Preset Channels Automatically"

or

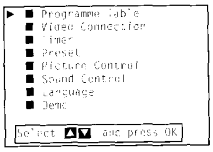
"Preset Channels Manually".

It is recommended to choose

"Preset Channels Automatically".

Then the channels are automatically stored as follows;

Programme 1	–	BBC1
Programme 2	–	BBC2
Programme 3	–	ITV
Programme 4	–	CH4 or S4C



▶ ■ Programme Table
■ Video Connection
■ Timer
■ Preset
■ Picture Control
■ Sound Control
■ Language
■ Demo

Select ▲▼ and press OK

Fig. 2.

⏻

To go back to main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU. Normal TV picture will be restored after one minute if menu functions are not selected.

Note on the Demo function:
If you choose Demo on the main menu, you can see a sequential demonstration of the menu functions. Press MENU to stop the function.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting:
Press ⬅ on the Remote Commander.

Notes:

- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see "Using the Programme Table" on page 16.
- You can sort the programme positions to have them appear on screen in the order you like. For details, see "Sorting Programme Positions" on page 10.
- Programme names are automatically taken from Teletext if available. If not please refer to page 11 "Captioning a station name" for further information.

❸ Preset channels automatically

1 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears. (See Fig. 3.)

2 Select `Auto Programme` with △+ or ▽– and press OK.
The `AUTO PROGRAMME` menu appears. (See Fig. 4.)

3 Press OK repeatedly until the first element of the "PROG" number is highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with △+ or ▽– or the number buttons (e.g. For "04", select "0" here) and press OK.
The second element of "PROG" will be highlighted.

5 Select the second element of the double-digit number with △+ or ▽– or the number buttons (e.g. For "04", select "4" here) (See Fig. 5.) and press OK.

6 The automatic channel presetting starts.
When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons. (Press MENU to restore normal TV picture).

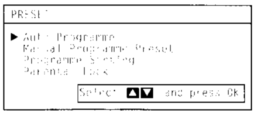

PRESET
▶ Auto Programme
Manual Programme Preset
Programme Sorting
Parental Lock
Select ▲▼ and press OK

Fig. 3.

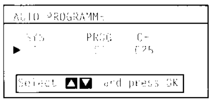

AUTO PROGRAMME
SYS
PROG
CH
C25
Select ▲▼ and press OK

Fig. 4.

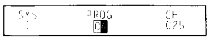

SYS
PROG
CH
C25

Fig. 5.

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake:
Press ⬅ to go back to the previous position.
To go back to main menu
Keep pressing ⬅.
To go back to the normal TV picture
Press MENU.

❸ Preset channels manually

1 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears. (See Fig. 6.)

2 Select `Manual Programme Preset` with △+ or ▽– and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 7.)

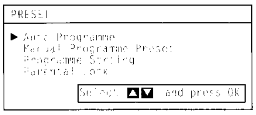

PRESET
▶ Auto Programme
Manual Programme Preset
Programme Sorting
Parental Lock
Select ▲▼ and press OK

Fig. 6.

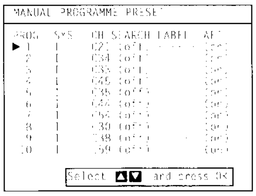

MANUAL PROGRAMME PRESET
PROG
SYS
CH
SEARCH
LABEL
AFT
Select ▲▼ and press OK

Fig. 7.

3 Using △+ or ▽–, select the programme position (number button) to which you want to preset a channel, and press OK.

4 *Keep pressing ▽– to select programme numbers higher than 10.*

5 Select, if necessary, a video input source (EXT) with △+ or ▽–. Then press OK. The first element of the CH position will be highlighted. (See Fig. 8.)

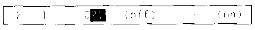


Fig.8.

To tune in a channel by frequency:
After selecting F in step 6, enter three digits using the number buttons.
Press OK.

6 Using △+ or ▽–, select C (to preset a regular channel), or F (to tune in by frequency) and press OK.
The first element of the "CH" number will be highlighted.
If you have selected EXT in step 5, select the video input source with △+ or ▽–. (See Fig. 9.)

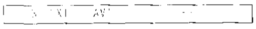


Fig.9.

Please refer to "Television Channel Number Guide" on page 24.

There are two ways to preset channels. If you know the channel number, go to step "7-Manual",

or

if you don't know the channel number, go to step "7- Search".

7 ***Manual***

-a Select the first element of the "CH" number with △+ / ▽– or the number buttons and press OK.
The second element of the "CH" number will be highlighted.

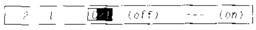


Fig.10.

-b Select the second element of the number with △+ / ▽– or the number buttons.
The selected number appears. (See Fig. 10.)

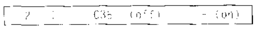


Fig.11.

-c Press OK
The "SEARCH" position is highlighted and the selected channel is now stored. (See Fig. 11.)

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

If you have made a mistake:
Press ⬅ to go back to the previous position.
To go back to main menu
Keep pressing ⬅.
To go back to the normal TV picture
Press MENU.

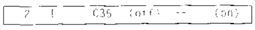


Fig.12.

7 ***Search***

-a Press OK repeatedly until the colour of the SEARCH position changes.

Fig.13.

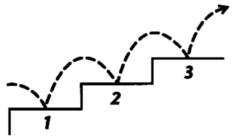
-b Start searching for the channel with △+ (up) or ▽– (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

-c Press OK if you want to store this channel. If not, press △+ or ▽– to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

Additional Presetting Functions

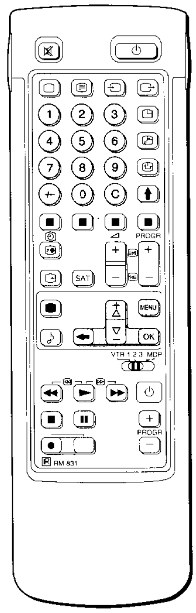


This section shows you additional presetting functions such as sorting or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible
- Locate the Menu operation buttons.

PROGRAMME SORTING



Sorting Programme Positions

With this function, you can sort the programme positions to a preferable order.

1 Press MENU to display the main menu.

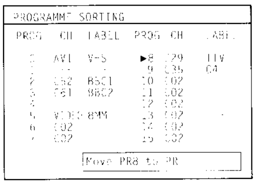
2 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears.

3 Select `Programme Sorting` with △+ or ▽– and press OK.
The `PROGRAMME SORTING` menu appears. (See Fig. 14.)

4 Using △+ or ▽–, select the programme position you want to move to another programme position and press OK.
The colour of the selected position changes. (See Fig. 15.)

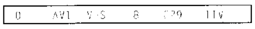
5 Using △+ or ▽–, select the programme position to which you want to move the selected programme and press OK. Now the two programme positions have been sorted. (See Fig. 16.)

6 Repeat steps 4 and 5 to exchange other programme positions.



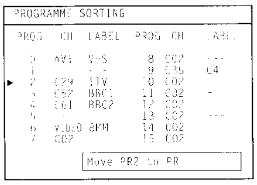
```
PROGRAMME SORTING
PROG  CH   LABEL    PROG  CH    LABEL
 0   AV1   V-S      ▶8   C29    ITV
 1   --    -         9   C35    C4
 2   C52   BBC1     10   C02
 3   C61   BBC2     11   C02
 4                  12   C02
 5   VIDEO 8MM      13   C02
 6   C02            14   C02
 7   C02            15   C02
          Move PR8 to PR
```

Fig. 14.



```
0    AV1   V-S     8    C29    ITV
```

Fig. 15.



```
PROGRAMME SORTING
  PROG  CH   LABEL    PROG  CH    LABEL
   0   AV1   V-S       8   C02    ---
   1         - -       9   C35    C4
▶  2   C29   ITV      10   C02
   3   C52   BBC1     11   C02    -
   4   C61   BBC2     12   C02
   5   -              13   C02    ---
   6   VIDEO 8MM      14   C02
   7   C02            15   C02
          Move PR2 to PR
```

Fig. 16.

For higher programme positions:
The display scrolls automatically.

If you have made a mistake:
Press ← to go back to the previous position.

To go back to main menu:
Keep pressing ←.

To go back to the normal TV picture:
Press MENU.

Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

Ⓒ

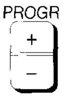
1 Press C on the Remote Commander.
The indication "C" appears on the screen.

2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.



1 Press MENU to display the main menu.

2 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` *menu appears.*

3 Select `Manual Programme Preset` with △+ or ▽– and press OK.
The `MANUAL PROGRAMME PRESET` *menu appears. (See Fig.17.)*

4 Using △+ or ▽–, select the programme position which you want to skip and press OK.
The "SYSTEM" position changes colour.

5 Press △+ or ▽– until – – – appears in the SYSTEM position. (See Fig. 18.)

6 Press OK. (See Fig. 19.)
When you select programmes using the PROGR +/– buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.

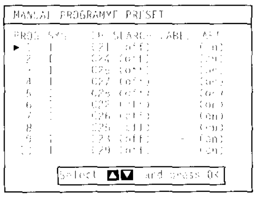


Fig. 17.

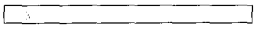


Fig. 18.

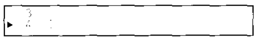


Fig. 19.

MANUAL PROGRAMME PRESET

Captioning a Station Name

Programme names are automatically taken from Teletext if available. However you can also "name" a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select `Preset` with △+ or ▽– and press OK.
The `PRESET` menu appears.

3 Select `Manual Programme Preset` with △+ or ▽– and press OK.
The `MANUAL PROGRAMME PRESET` menu appears. (See Fig. 20.)

4 Using △+ or ▽–, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with △+ or ▽– and press OK.The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)

6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 22.)

7 Repeat steps 5 and 6 to caption names for other channels.

If you have made a mistake:
Press ⬅ to go back to *the previous position.*

To go back to main menu:
Keep pressing ⬅.

To go back to the normal TV picture:
Press MENU.

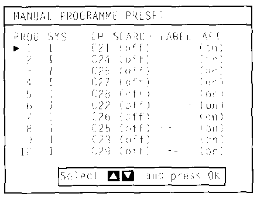


Fig. 20.

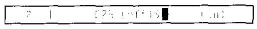


Fig. 21.

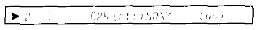


Fig. 22.

MANUAL PROGRAMME PRESET

Manual Fine-Tuning

Normally, the AFT(automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽− and press OK.
The PRESET menu appears.

3 Select Manual Programme Preset with △+ or ▽− and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 23.)

4 Using △+ or ▽− , select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.

5 Fine-tune the channel with △+ or ▽− so that you get the best TV reception. As you press the cursor buttons, the frequency changes from −15 to +15. (See Fig. 24.)

6 After fine tuning, press OK.
The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.

7 Repeat steps 4 to 6 to fine-tune other channels.

To reactivate AFT (automatic fine tuning):
Repeat from the beginning and select "ON" in step 5.

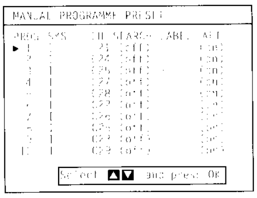


Fig. 23.

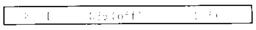


Fig. 24.

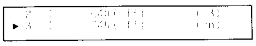


Fig. 25.

PARENTAL LOCK

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.

2 Select Preset with △+ or ▽− and press OK.
The PRESET menu appears.

3 Select Parental Lock with △+ or ▽− and press OK.
The PARENTAL LOCK menu appears. (See Fig. 26.)

4 Using △+ or ▽−, select the programme position you want to block and press OK.
The CH and LABEL, of the selected programme number, change colour indicating that this programme is now blocked.
(See Fig. 27.)

5 Repeat step 4 to block other programme positions.

Cancelling blocking

1 On the PARENTAL LOCK menu, select the programme position you want to unblock with △+ or ▽−.

2 Press OK.
The CH and LABEL change to normal colour indicating that the blocking has been cancelled.

If you try to select a programme that has been blocked:
The message "LOCKED" appears on the blank TV screen.

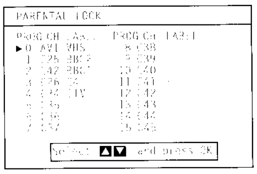


Fig. 26.

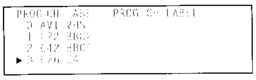
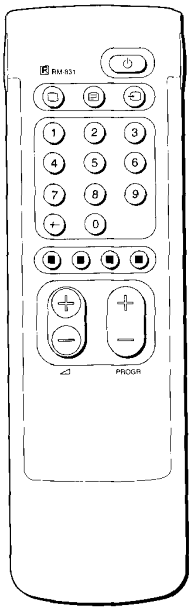


Fig. 27.

Watching the TV



If no picture appears when you depress ⏼ on the TV

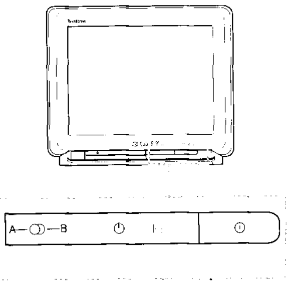
and if the standby indicator on the TV is lit, the TV is in standby mode. Press ▢ or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

Depress ⏼on the TV.



Switching off temporarily

Press ⏻ *on the Remote Commander.*
The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again

Press ▢, PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress ⏼ on the TV.

Selecting TV Programmes

Press PROGR +/– or press number buttons.

To select a double-digit number

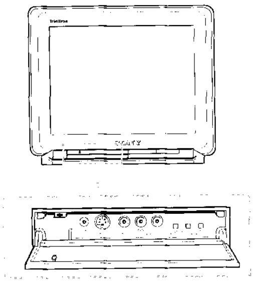
Press -/– –, then the numbers.
For example, if you want to choose 23, press -/– –, 2, and 3.

Adjusting the Volume

Press ◿ +/–.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.



- Press P→◿→⇥ button repeatedly until the programme number, ◿ (for volume), or ⇥ (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET symbol →•← is displayed).

For details of the teletext operation, refer to page 17.

Watching Teletext or Video Input

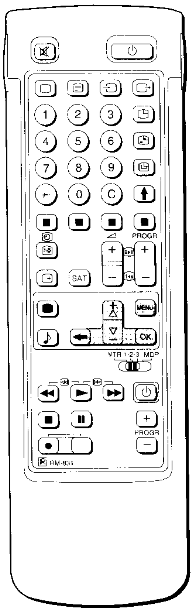
Watching teletext

- Press ⊜ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press ⊡ (PAGE +) or ⊡ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ▭.

For details of the video input picture, refer to page 21.

Watching a video input picture

Press ⊸ repeatedly until the desired video input appears. To go back to the normal TV picture, press ▭.



More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press ⊕ once to display all the indications. They will disappear after some seconds.
- Press ⊕ twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound.

Press 🔇.
To resume normal sound, press 🔇 again.

Displaying the time

Press ⊙. This function is available only when teletext is broadcast.
To make the time display disappear, press ⊙ again.

Displaying of the Programme Table

Press OK. A Programme Table will be displayed on the right side of the TV screen (See. Fig.28)

Selecting of TV programmes

Press PROGR +/- or select the desired programme position using △+ or ▽– and press OK.

To make the Programme Table disappear
Press MENU.

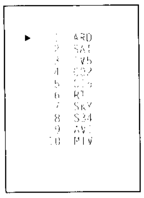
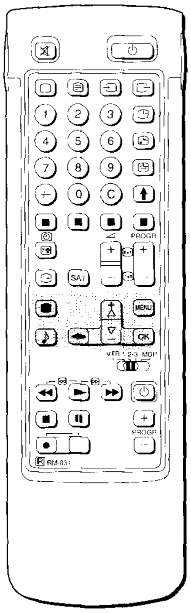


Fig.28.

Adjusting and Setting the TV Using the Menu

PICTURE CONTROL

SOUND CONTROL



Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can change the aspect ratio of the TV display for wide screen effect. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones (🎧).

1 Press ● (for picture) or ♪ (for sound) on the Remote Commander.

or

Press MENU and select `Picture Control` or `Sound Control`, then press OK.
The `PICTURE CONTROL` or `SOUND CONTROL` menu appears. (See Fig. 29 or Fig. 30)

2 Using △+ or ▽–, select the item you want to adjust and press OK.The selected item changes colour. (See Fig. 31)

3 Adjust the setting with △+ or ▽ – and press OK.
The cursor appears beside the next item (at the left margin). (See Fig. 32)
For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.

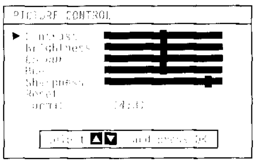


Fig. 29.

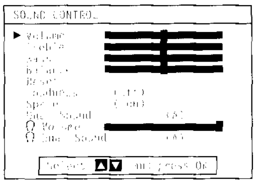


Fig. 30.

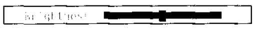


Fig. 31.

Fig. 32.

If you have made a mistake:
Press ⬅ to go back to the previous position.
To go back to the main menu:
Keep pressing ⬅.
To go back to the normal TV picture:
Press MENU.

Note:
HUE is only available for NTSC colour system.

Note on LINE OUT:
The audio level and the dual sound mode output from the → jack on the rear correspond to the HEADPHONES VOLUME and DUAL SOUND settings.

When watching a video input source with stereo sound:
You can select DUAL SOUND to change the sound.

Effect of each control

PICTURE CONTROL	Effect
Contrast	Less ——I—— More
Brightness	Darker ——I—— Brighter
Colour	Less ——I—— More
Hue	Greenish ——I—— Reddish
Sharpness	Softer ——I—— Sharper
Reset	Resets picture to the factory preset levels.
Format	4 : 3 : Normal 16 : 9 : Wide screen effect

SOUND CONTROL	Effect
Volume	Less —I— More
Treble	Less —I— More
Bass	Less —I— More
Balance	More left —I— More right
Reset	Resets sound to the factory preset levels.
Loudness	off : Normal on : When listening to low volume sound.
Space	off : Normal on : Obtain acoustic sound effect.
Dual Sound	A : left channel B : right channel stereo mono The selected mode of the A-ↀ-B indicator on the TV lights up. (for NICAM broadcasts see next page)
Headphones:	
🎧 Volume	Less —I— More
🎧 Dual Sound	A : left channel B : right channel STEREO MONO

*Selecting Nicam Broadcasts**

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received, "NICAM" appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the A-ↀ-B indicators, on the TV will switch off.

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these by first following the instructions explained on page 15.

Service Being Broadcast	Action	Effect	Indication on the TV A-ↀ-B	
Stereo	Press △+ or ▽−	Stereo Nicam (Mono 2-Channel)	■	■
		mono	□	□
Press △+ or ▽− again to return to stereo Nicam (mono 2-channel)				
Bilingual	press △+ or ▽−	Channel A Nicam	■	□
		Channel B Nicam	□	■
		mono	□	□
Press △+ or ▽− again to return to channel A Nicam				

* Depending on availability of service.

PROGRAMME TABLE

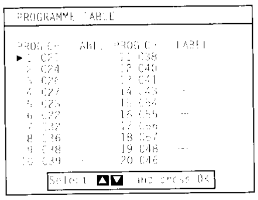
To go back to the normal TV picture:
Press MENU.

Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

1 From the main menu, select `Programme Table` with △+ or ▽− and press OK.
The `PROGRAMME TABLE` menu appears. (See Fig. 33)
To scroll to higher programme numbers, press ▽−.

2 To select a programme using this menu select the programme number with △+ or ▽− and press OK.
The selected programme appears.



```
PROGRAMME TABLE

PROG CH   LABEL  PROG CH   LABEL
▶ 1 C21          11 C38
  2 C24          12 C40
  3 C28          13 C41
  4 C27          14 C43
  5 C25          15 C44
  6 C22          16 C55
  7 C32          17 C56
  8 C36          18 C57
  9 C38          19 C48
 10 C39          20 C46
    Select ▲▼ and press OK
```

Fig. 33.

TIMER

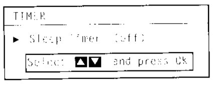
To switch off the timer:
Select "OFF" in step 3.

To check the remaining time:
Press ⊕.

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select `Timer` with △+ or ▽− and press OK.
The `TIMER` menu appears. (See Fig. 34.)



```
TIMER
▶ Sleep Timer (off)
  Select ▲▼ and press OK
```

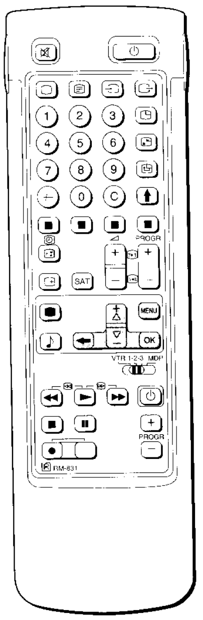
Fig. 34.

2 Press OK.
The time period option changes colour.

3 Select the time period with △+ or ▽−.
The time period (in minutes) changes as follows:
10→20→30→40→50→60→70→80→90
↑———— OFF ————┘

4 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.

Teletext



Note:
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander:
You can switch teletext on and off, operate Fastext, and directly select page numbers.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).If there is no teletext broadcast, "No text available" is displayed on the informa-tion line at the top of the screen.

To switch teletext off
Press ▢.

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

With page-catching

1 Select a teletext page with a page overview (e.g. index page).

2 Press OK. Using △+ or ▽–, select the desired page. "Page Catching" will be displayed on the information line. Press OK. The requested page will appear in a few seconds.

Press ⊜ to resume normal teletext reception.

Accessing next or preceding page

Press ⊞ (PAGE +) or ⊟ (PAGE –).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

Preventing a teletext page from being updated

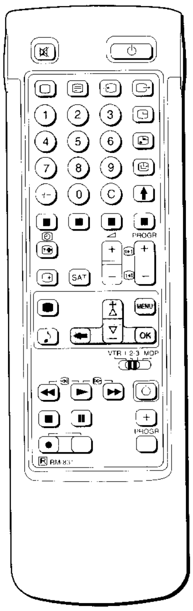
- Press ⊕ (HOLD). The HOLD symbol "⊕" is displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Using Fastext

Note:
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

With Fastext you can access pages with one key stroke.When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.

Using the Teletext Menu


MENU
OK
VTR 1 2 3 MDP
PROGR
SAT
RM 831

Note:
Some of the features may not be available depending on the Teletext service.

This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 35)

2 Using △+ or ▽–, select the teletext function you want and press OK. (See Fig. 36)

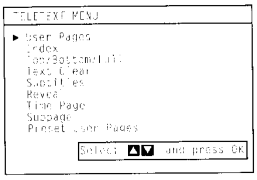

TELETEXT MENU
▶ User Pages
Index
Top/Bottom/Full
Text Clear
Subtitles
Reveal
Time Page
Subpage
Preset User Pages
Select ▲▼ and press OK

Fig. 35.

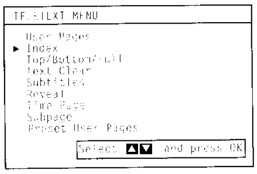

TELETEXT MENU
User Pages
▶ Index
Top/Bottom/Full
Text Clear
Subtitles
Reveal
Time Page
Subpage
Preset User Pages
Select ▲▼ and press OK

Fig. 36.

USER PAGES/PRESET USER PAGES

See page 19 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down the screen. After having selected the function, an information line `Top/Bottom/Full` will be displayed. (See Fig. 37)

Press △+ for `Top` to enlarge the upper half. For `Bottom` keep pressing ▽–, to enlarge the lower half. Press OK for `Full` to resume the normal size.

Press ⊜ to resume normal teletext reception.

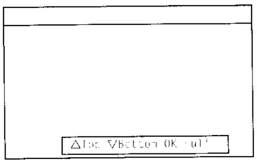

▲Top ▼Bottom OK Full

Fig. 37.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be captured (The symbol changes colour) (see Fig. 38).

Press ⊜ to view the requested page.

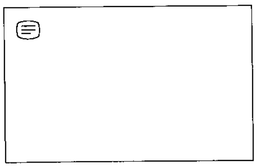


Fig. 38.

Note on Subtitles:
If the subtitles are not broadcast on page 888, please select the subtitle page using the number buttons.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line "REVEAL ON/OFF" will be displayed. (See Fig. 39)

Using △+ or ▽–, select ON to reveal the information or OFF to conceal it again.

Press ⊜ to resume normal teletext reception.

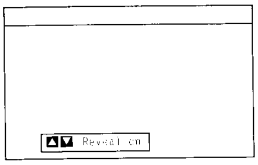


Fig. 39.

TIME PAGE

This function is not available.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR+/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

To cancel the request:
Select "Subpage" and press OK.

If two broadcasting stations use the same Teletext:
You can preset one bank to 2 different programme positions.

User Page Bank System

You can store up to 30 pages in the "Teletext page bank system". In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 "banks" (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

1 Press ⊜ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.

2 Select `PRESET USER PAGES` with △+ or ▽– and press OK.

3 Select the desired bank with △+ or ▽– and press OK. The cursor will go to the first position (P1) of the preferred pages.

4 Input the three digits of your first preferred page with the number buttons and press OK.
The cursor will go to the second position.

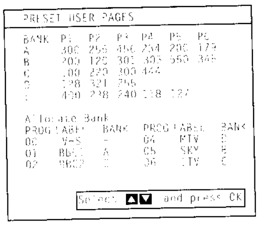
5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.

6 Select `Allocate Bank` with △+ or ▽– and press OK.

7 Select the programme position for which you have preset pages with △+ or ▽– and press OK. (See Fig. 40)

8 Select the desired bank with △+ or ▽– (Banks A to E are available) and press OK.

9 Repeat steps 3 to 8 for the other 4 banks available.



```
PRESET USER PAGES
BANK   P1   P2   P3   P4   P5   P6
A      300  256  456  234  200  179
B      200  120  301  303  550  345
C      100  220  300  444
D      128  321  255
E      400  228  240  118  127

Allocate Bank
PROG LABEL   BANK   PROG LABEL   BANK
00   V-S     -      04   MTV     D
01   BBC1    A      05   SKY     B
02   BBC2    E      06   ITV     C

Select ▲▼ and press OK
```

Fig.40.

Displaying User Pages

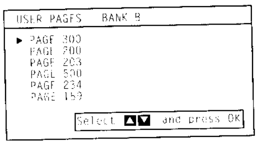
1 Select MENU.

2 Select `User Pages` with △+ or ▽– and press OK.
A table of the stored preferred pages will be displayed. (See Fig. 41)

3 Select the desired page with △+ or ▽– and press OK. The page will be displayed after some seconds.

You can use the coloured buttons on the Remote Commander to have quick access to the first four User pages. Page 1 corresponds to the red button, P 2 to the green one, P 3 to the yellow one and P 4 to the blue button.

To select the desired page press the respective coloured button while you are in TV mode. Now the Page number of this teletext page will appear in white at the top in the left-handed corner of the TV screen. When the page number changes colour, the page is available. Press the coloured button again to display the page.



```
USER PAGES    BANK B
▶ PAGE 300
  PAGE 700
  PAGE 203
  PAGE 500
  PAGE 234
  PAGE 159
        Select ▲▼ and press OK
```

Fig. 41.

Connecting and Operating Optional Equipment

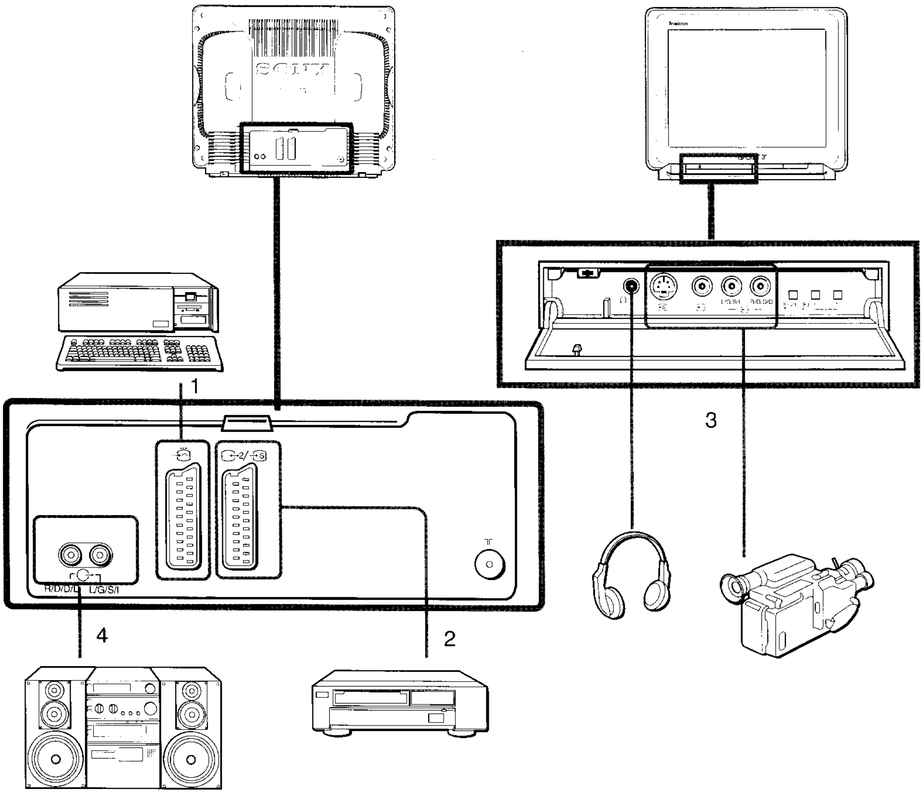
Connecting Optional Equipment

You can connect optional audio-video equipment to this TV such as VTRs, video disc players, and stereo systems.

To connect a VTR using the ⊤ terminal: Connect the aerial output of the VTR to the aerial terminal ⊤ of the TV.

We recommend that you tune in the signal to programme number "0". For details see "Preset Channels Manually" on page 8.

If the picture or the sound is distorted: Move the VTR away from the TV.



S video input (Y/C input): Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance). This TV is equipped with 2 S Video input jacks through which these separated signals can be input directly.

When connecting a monaural VTR: Connect only the white ⊙ jack to both the TV and VTR.

Acceptable input signal	Available output signal
1 Normal audio/video and RGB signal	Video/audio from TV tuner
2 Normal audio/video and S video signal	Video/audio from selected source
3 Normal audio/video and S video signal	No outputs
4 No inputs	Audio signal (variable)

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen, and which output source is selected. You can also select them on the menu display.

1 Select `Video Connection` with △+ or ▽– and press OK. The `VIDEO CONNECTION` menu appears. (See Fig. 42)

You can see which source is selected for the TV and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV Screen (input source for the TV screen) or output (output source) with △+ or ▽– and press OK. One of the source items changes colour. (See Fig. 43)

3 Select the desired source with △+ or ▽–.
(See Fig. 44)
For details about each source, see the table on page 21.

4 Press OK.

The selected source is confirmed, and the cursor appears. (See Fig. 45)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

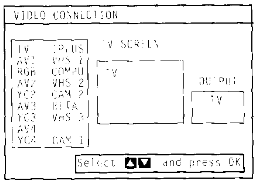

VIDEO CONNECTION
TV
1PLUS
AV1
VHS 1
RGB
COMPU
AV2
VHS 2
YC2
CAM 2
AV3
BETA
YC3
VHS 3
AV4
YC4
CAM 1
TV SCREEN
TV
OUTPUT
TV
Select ▲▼ and press OK

Fig. 42.

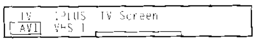

TV
1PLUS
TV Screen
AV1
VHS 1

Fig. 43.

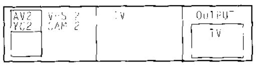

AV2
YC2
VHS 2
CAM 2
TV
OUTPUT
TV

Fig. 44.

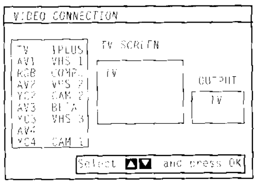

VIDEO CONNECTION
TV
1PLUS
AV1
VHS 1
RGB
COMPU
AV2
VHS 2
YC2
CAM 2
AV3
BETA
YC3
VHS 3
AV4
YC4
CAM 1
TV SCREEN
TV
OUTPUT
TV
Select ▲▼ and press OK

Fig. 45.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8mm or VHS VTRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR

VTR 2: 8mm VTR

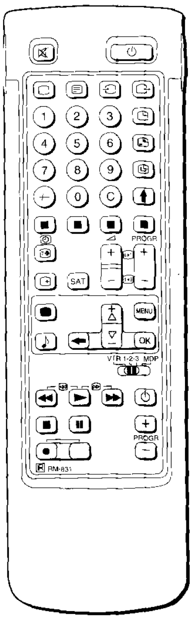
VTR 3: VHS VTR

MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

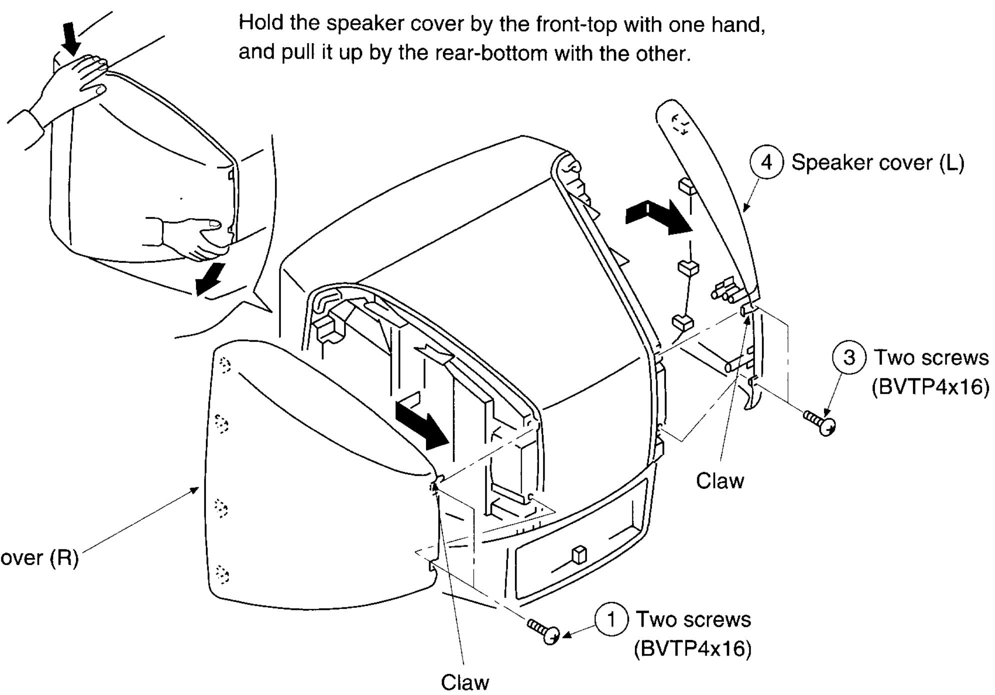
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.


PROGR
SAT
MENU
OK
VTR 1-2-3 MDP
PROGR
RM-831

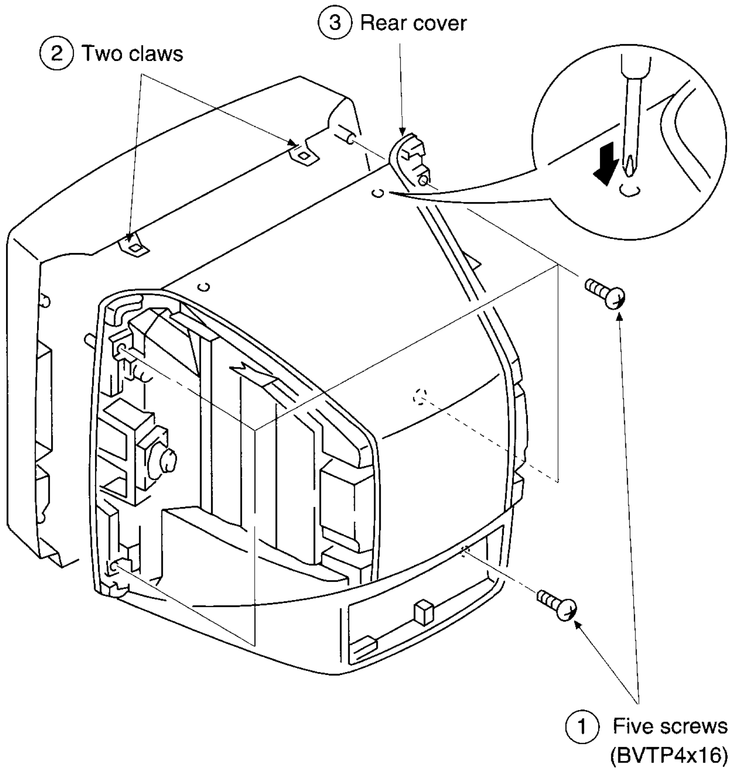
When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

SECTION 2
DISASSEMBLY

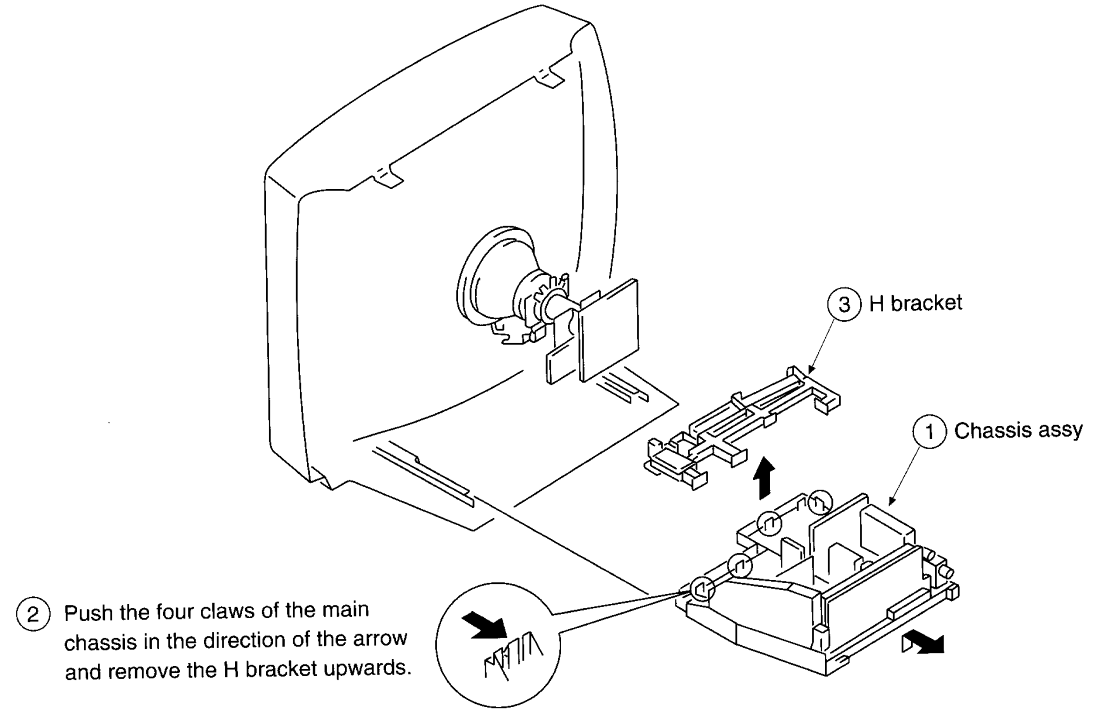
2-1. SPEAKER COVER REMOVAL


Hold the speaker cover by the front-top with one hand, and pull it up by the rear-bottom with the other.
④ Speaker cover (L)
③ Two screws (BVTP4x16)
Claw
② Speaker cover (R)
① Two screws (BVTP4x16)
Claw

2-2. REAR COVER REMOVAL

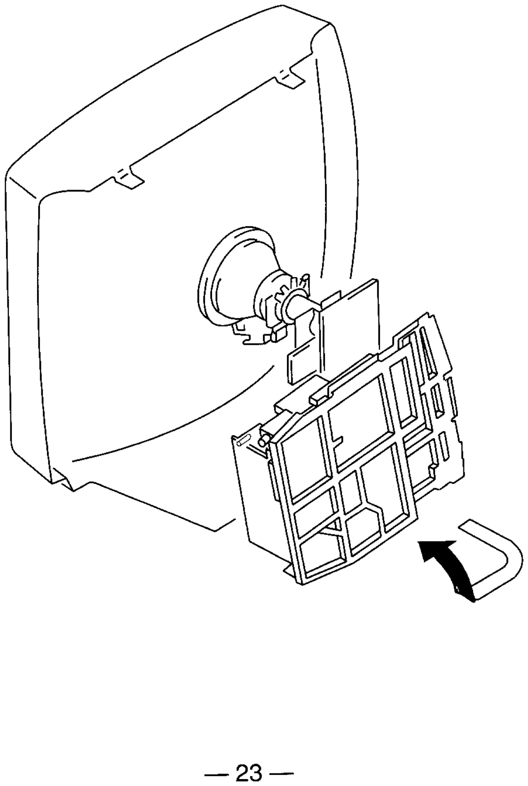

③ Rear cover
② Two claws
① Five screws (BVTP4x16)

2-3. CHASSIS ASSY REMOVAL

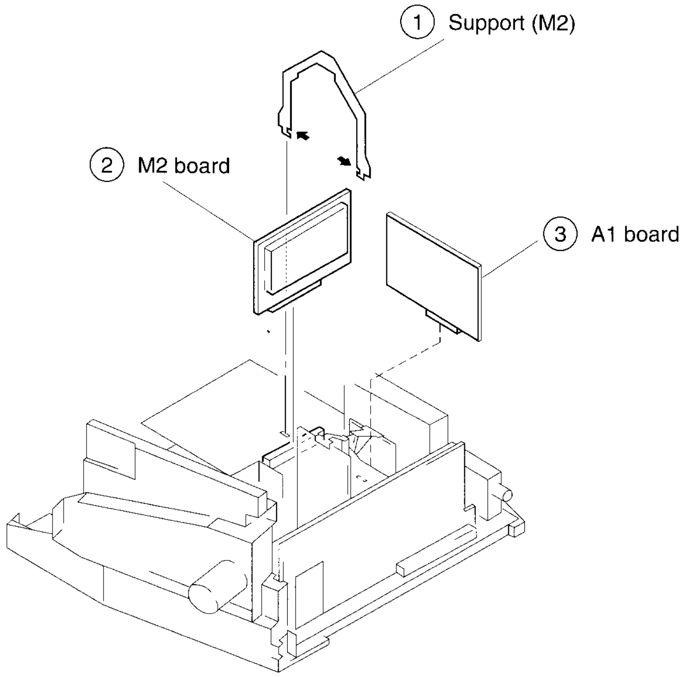

③ H bracket
① Chassis assy

② Push the four claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

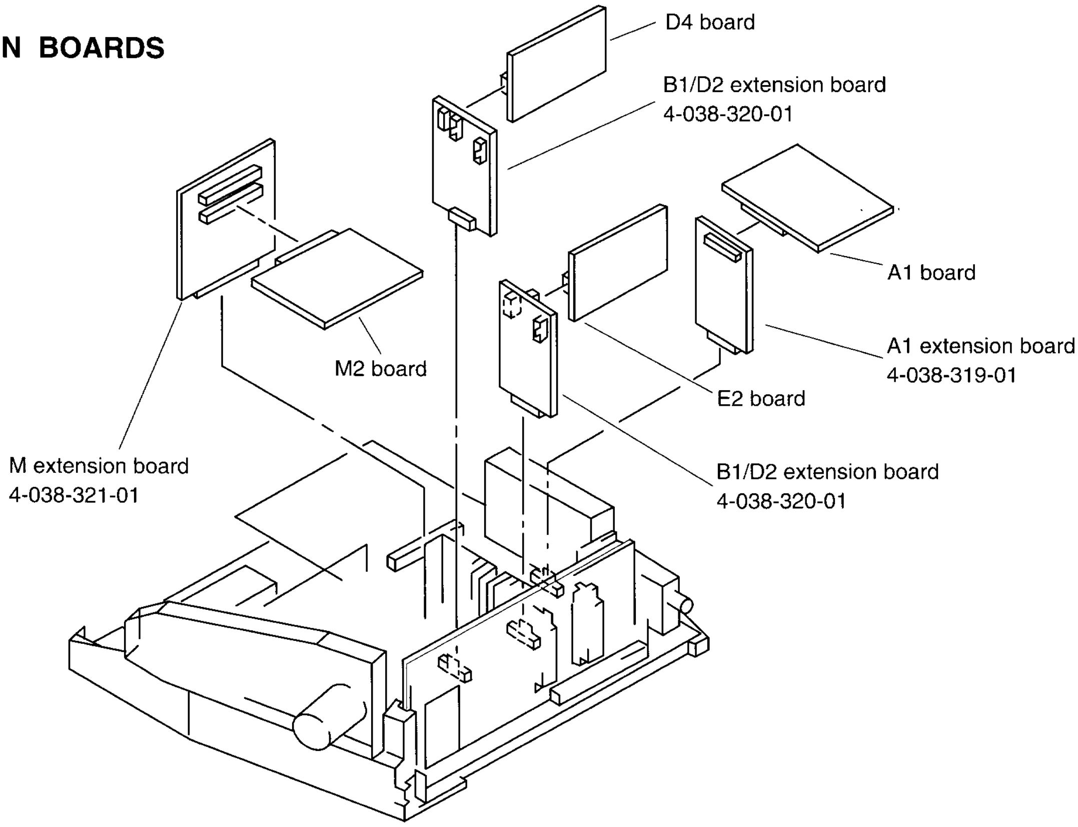
2-4. SERVICE POSITION



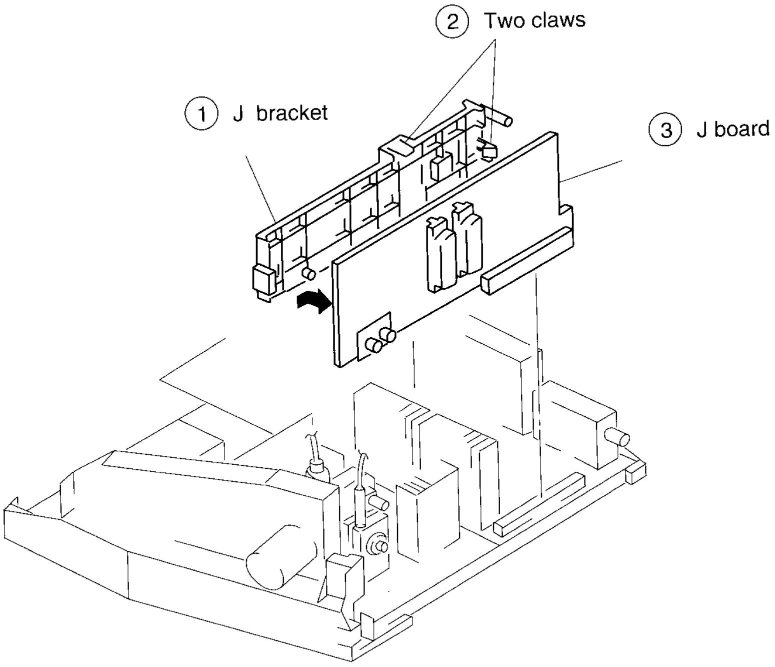
2-5. M2 AND A1 BOARD REMOVAL


① Support (M2)
② M2 board
③ A1 board

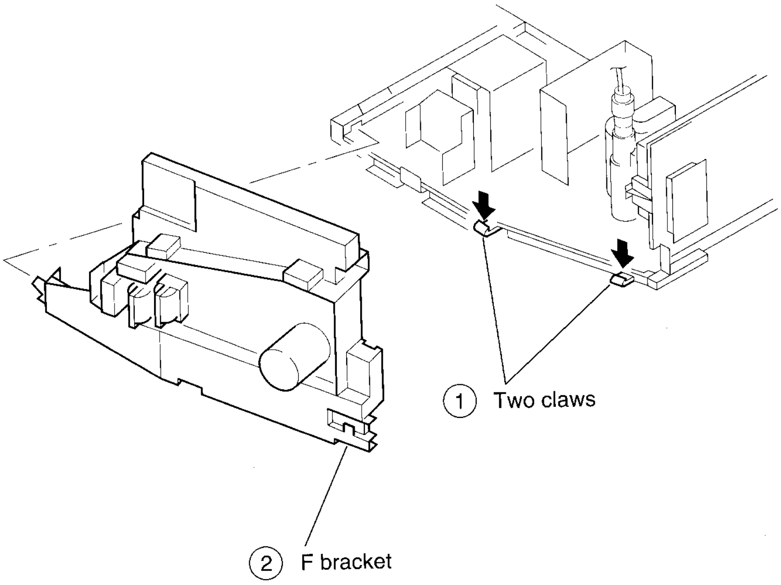
2-6. EXTENSION BOARDS


D4 board
B1/D2 extension board
4-038-320-01
A1 board
A1 extension board
4-038-319-01
M2 board
E2 board
M extension board
4-038-321-01
B1/D2 extension board
4-038-320-01

2-7. J BOARD REMOVAL

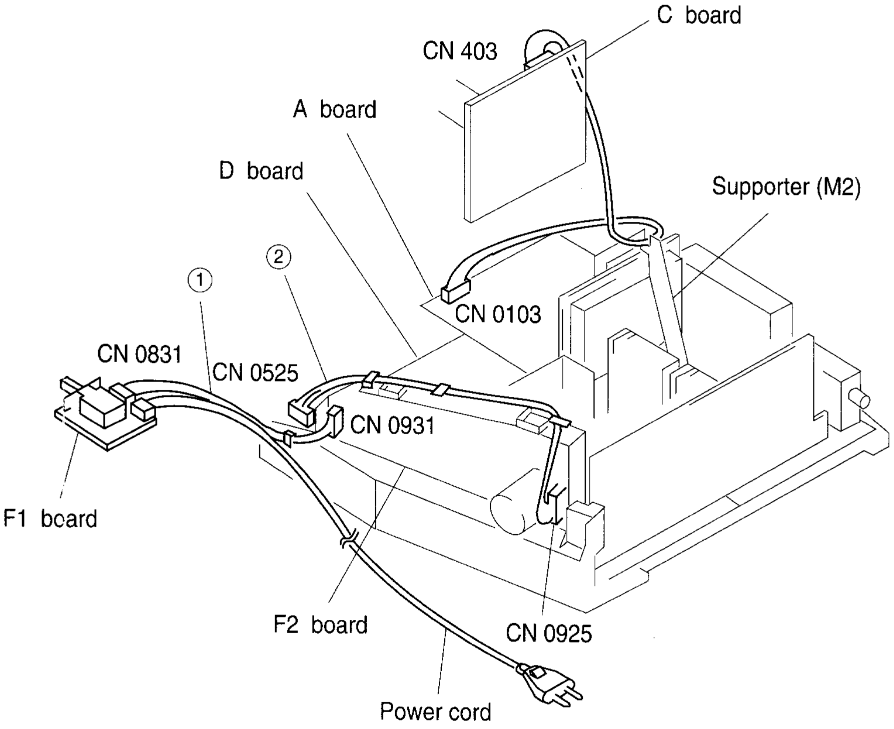

② Two claws
① J bracket
③ J board

2-8. F BRACKET REMOVAL

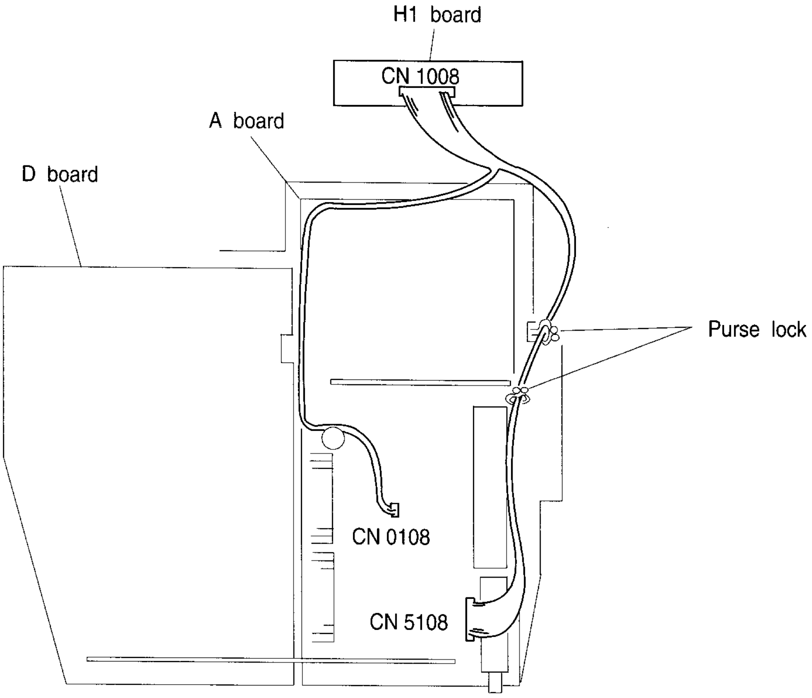

① Two claws
② F bracket

2-9-1. WIRE DRESSING

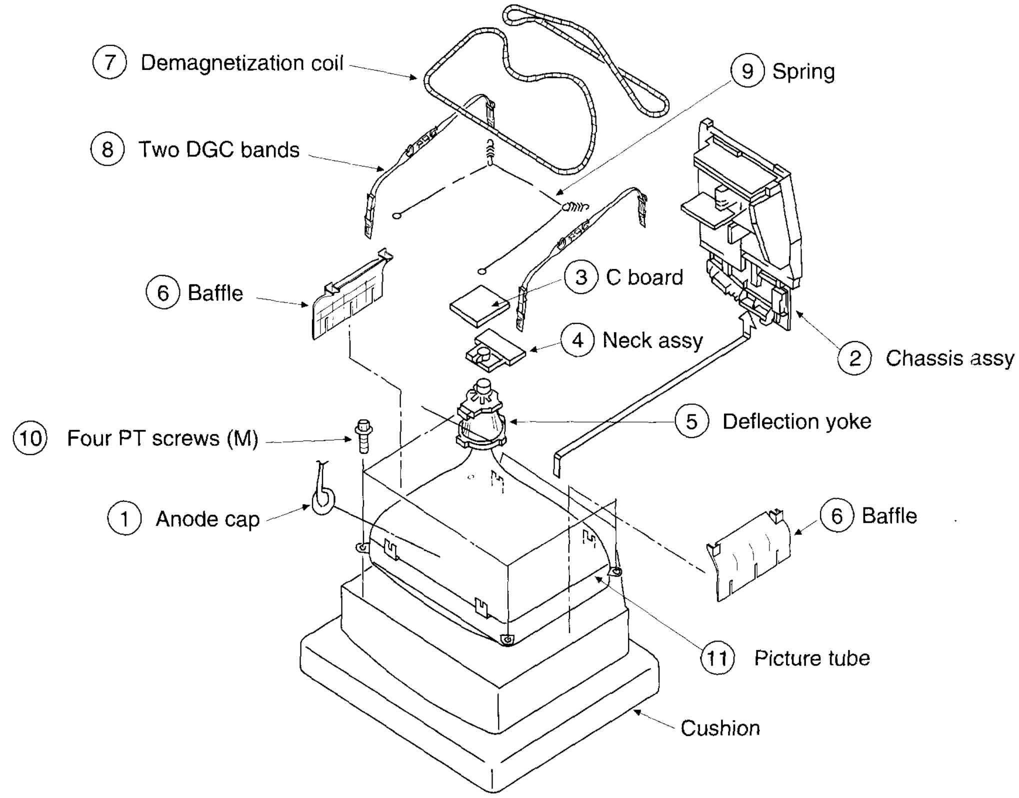
* Keep distance between ① and ②


C board
CN 403
A board
D board
Supporter (M2)
②
①
CN 0103
CN 0831
CN 0525
CN 0931
F1 board
F2 board
CN 0925
Power cord

2-9-2. WIRE DRESSING


H1 board
CN 1008
A board
D board
Purse lock
CN 0108
CN 5108

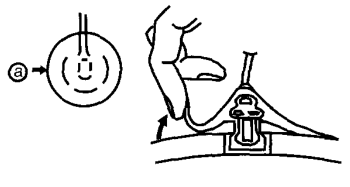
2-10. PICTURE TUBE REMOVAL


⑦ Demagnetization coil
⑨ Spring
⑧ Two DGC bands
⑥ Baffle
③ C board
④ Neck assy
② Chassis assy
⑤ Deflection yoke
⑩ Four PT screws (M)
① Anode cap
⑥ Baffle
⑪ Picture tube
Cushion

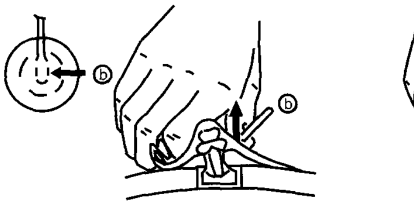
• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

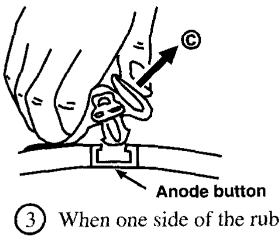
*** REMOVING PROCEDURES.**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ


ⓒ
Anode button

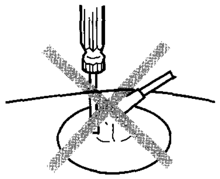
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

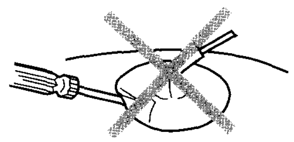
• HOW TO HANDLE AN ANODE-CAP

① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.





SECTION 3
SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

◑ Contrast .... 80% (or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

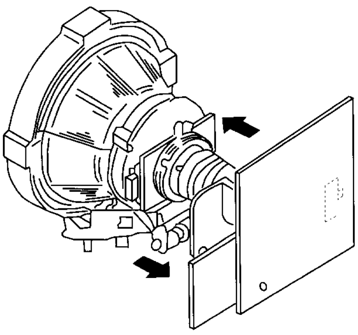


Fig. 3-1

Fig. 3-2

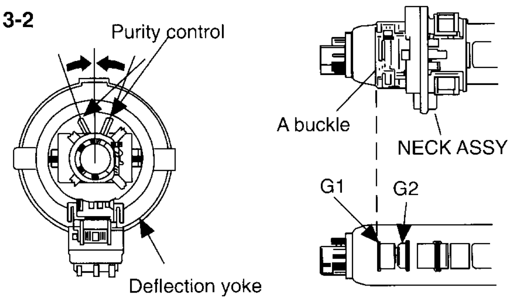
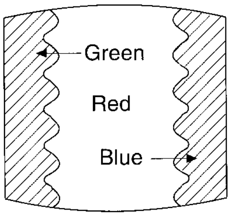

Purity control
A buckle
NECK ASSY
G1
G2
Deflection yoke

Fig. 3-3


Green
Red
Blue

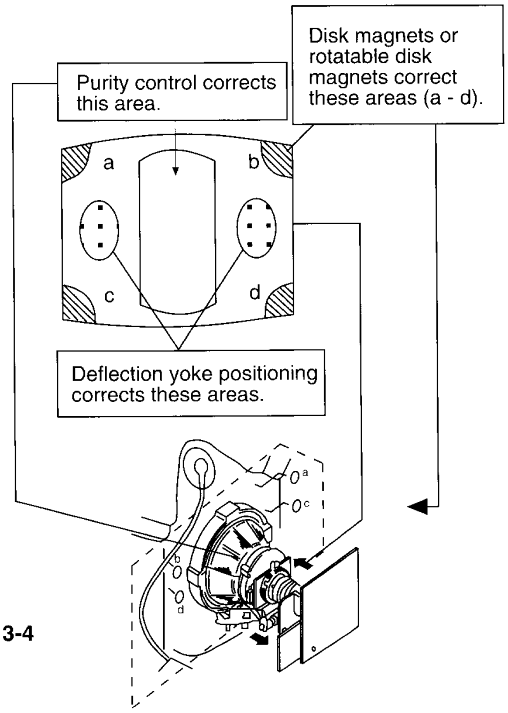

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a - d).
a
b
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d

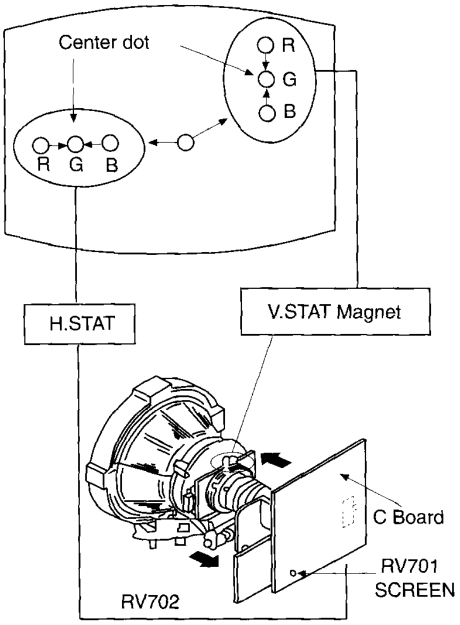
Fig. 3-4

3-2. CONVERGENCE

Preparation:

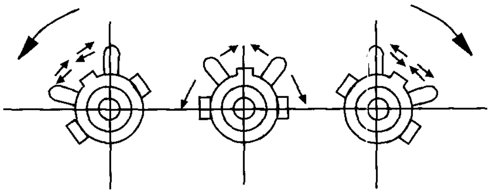
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

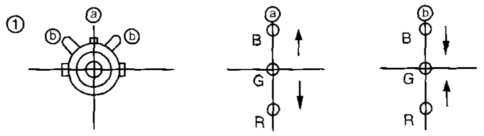


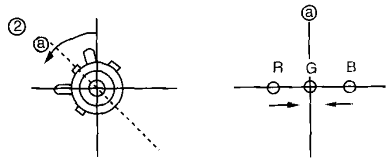
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

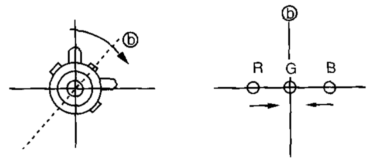
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

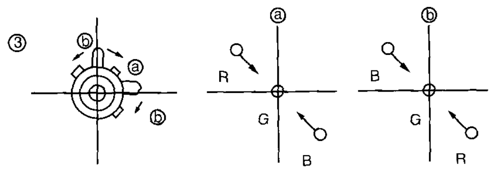


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

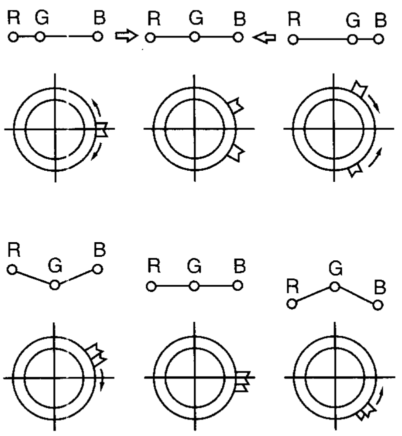


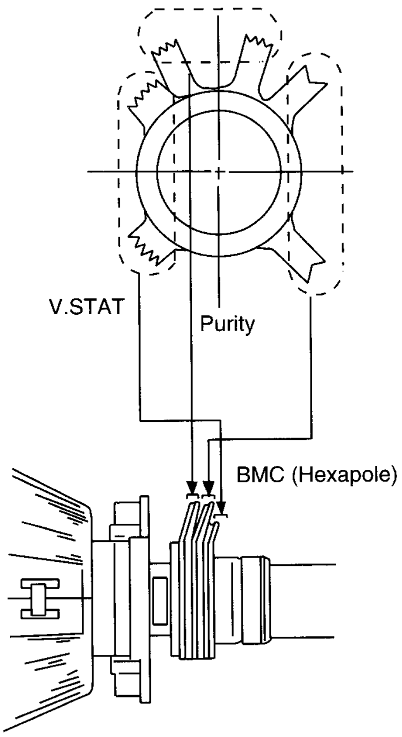






- Operation of BMC (Hexapole) Magnet


R G B
R G B
R G B
R G B
R G B
R G B


V.STAT
Purity
BMC (Hexapole)

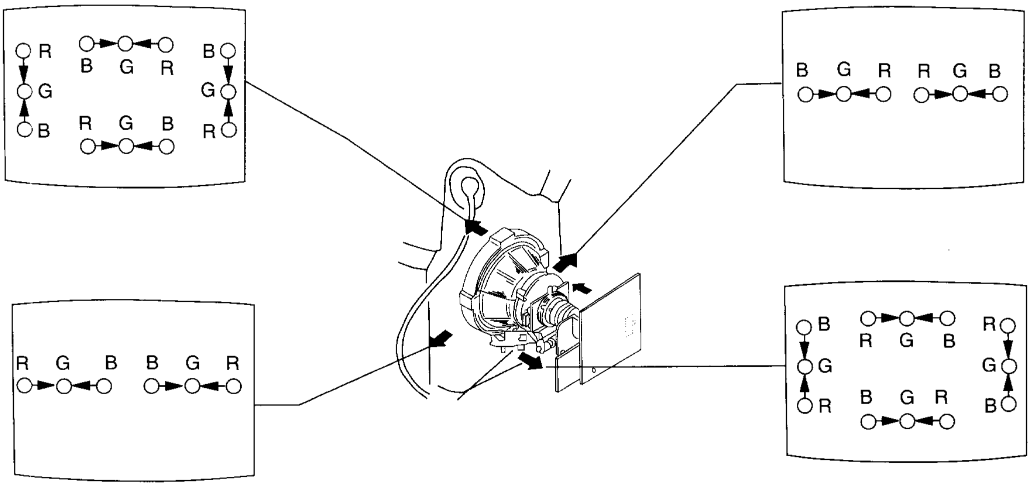
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment.

Preparation:

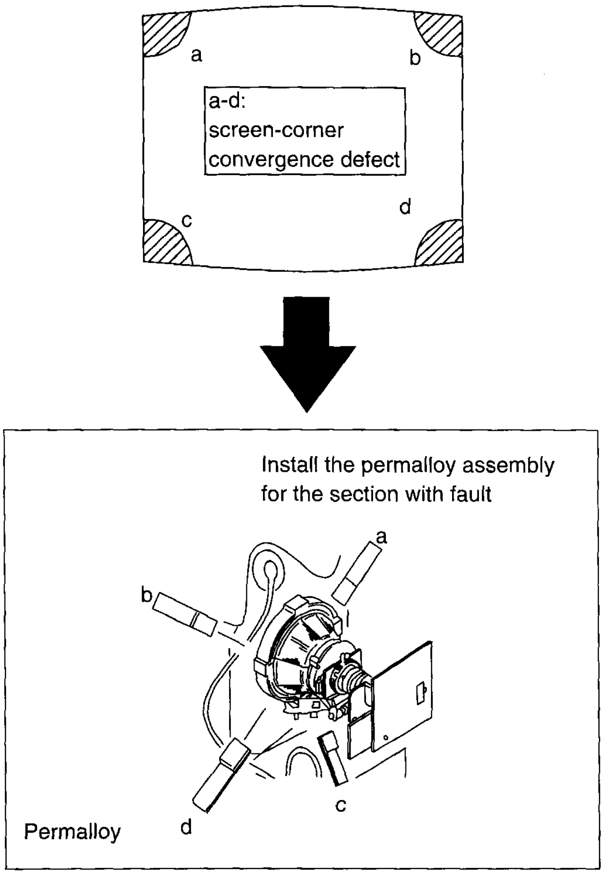
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Re-install the deflection yoke spacer.


R G B
B G R
R G B
B G R
R G B B G R
B G R R G B
B G R
R G B
B G R
R G B

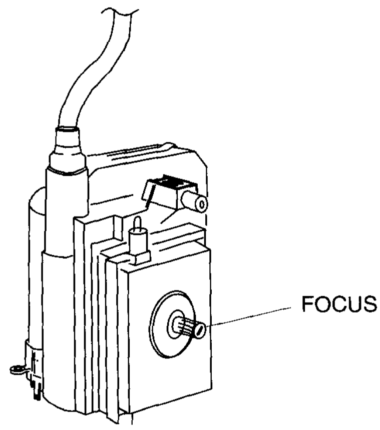
(4) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.



3-3. Focus

Adjust the focus to optimize the screen.



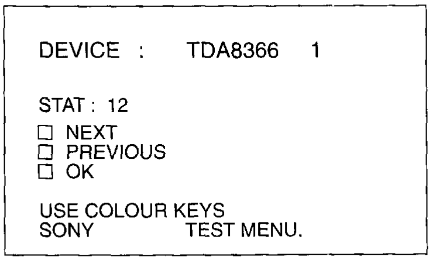
3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.



```
DEVICE :     TDA8366    1

STAT : 12
☐ NEXT
☐ PREVIOUS
☐ OK

USE COLOUR KEYS
SONY            TEST MENU.
```

4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-831

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

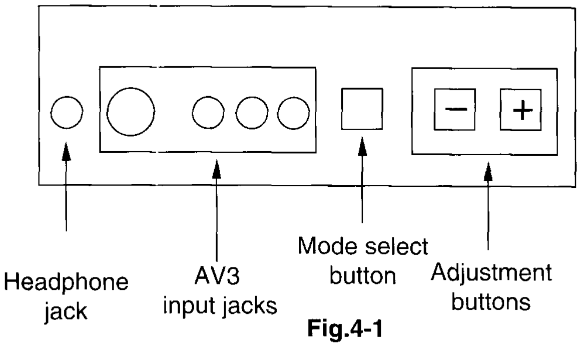


Fig.4-1

2. "TT" will appear at the upper right corner of the screen.

Command operation in service mode.

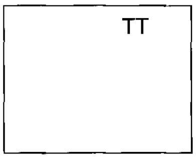


Fig.4-2

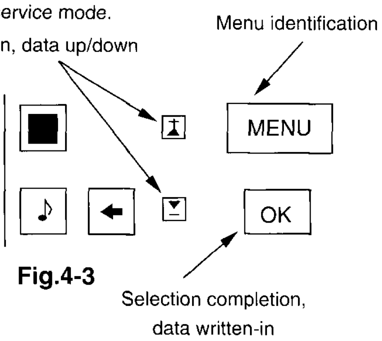

Item selection, data up/down
Menu identification
MENU
OK
Selection completion, data written-in

Fig.4-3

3. Press the MENU button on the remote commander to obtain the menu on the screen.

MAIN MENU
Programme Table
Video Connection
Picture Control
Sound Control
Timer
Preset
Language
> DEMO
Select < > and press OK

Fig.4-4

4. Press the ▲ and ▼ buttons on the remote commander and move > to DEMO.
5. Press OK button to proceed to the next menu.
6. The menu of fig. 4-5 will appear on the screen. Select the DEVICE corresponding to the adjustment item from the table on the next page.

DEVICES
Initialize
> CXA1587
CXD2018
TDA9145
CXA1526
TDA6612
CX7948A
P/P service
Select < > and press OK

Fig. 4-5

7. If adjustment item is CXA1587, press the ▼ button and move > to CXA1587.

CXA1587

Item No	Adjustment item	Data Amount
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	12
06	RGB PICTURE	7
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
> 09	SUB BRIGHT	ADJ.
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.

8. Press OK button to get the next selection menu.
9. Press ▼ button and move > to the adjustment item and press OK button.
10. Press ▲ and ▼ buttons to change the data in order to comply with each standard.
11. Press OK button to write data.
12. Turn off the power to quit service mode when adjustments are completed.

CXA1587

Item No	Adjustment item.	Data Amount
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	12
06	RGB PICTURE	7
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	8
22	DC TRANSFER RATIO	3
23	DYNAMIC PICTURE	2
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	TRAP	OFF
30	H SHIFT	36
31	DA TEST	ON
32	PRE/OVER	12
33	SUB FOCUS	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1 WHT	OFF
39	AGING 2 BLK	ON
40	AKB OFF	ON
41	INHIBIT RGB	ON
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE OFF	OFF
46	V EXTENSION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC	OFF
50	REF. POSITION	0

CXD2018

Item No	Adjustment item.	Data Amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP. V	12
13	HV COMP. H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	INTERLACE	ON
20	H SHIFT	26
21	N/S CORRECTION	ADJ.

Typical On Screen Display based values when receiving PAL Phillips pattern.

TDA6612	ADJ
Stereo-Separation	(31)

Should be adjusted twice, once for 4 : 3 and once for 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input a PAL RED pattern.
2. Connect an oscilloscope to pin ① of CN0403 (R OUT) on C board.
3. Enter into service mode and press 3,8.
4. Adjust data by △ or ▽ to minimize the chroma element at CN0403 pin ①.

SUB BRIGHTNESS ADJUSTMENT

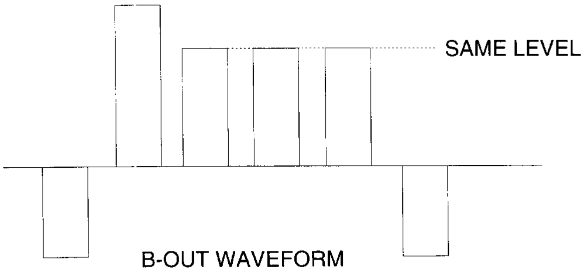
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin ① of CN0403 (R OUT) and adjust data to obtain 2.5Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin ③ of CN0403 (B OUT) on the C board.
3. Enter into service mode and press 22 of CXA1587, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform are set to the same level.



STEREO-SEPARATION ADJUSTMENT

1. Input a 1kHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound is not detected in the Right-ch and the Left-ch.

DRIVE AND CUT-OFF

See direct test mode list attached and refer to sub brightness or such for adjustment method.

BELL FILTER ADJUSTMENT L3, L2

1. Input a Phillips signal.
2. Connect an oscilloscope to pin ⑮ of IC1 on the E2 board.
3. Adjust L3 (Bell Filter) to obtain a flat chroma/smooth signal see (Fig 4-6).
4. Connect an oscilloscope to pin ② of IC1 on the E2 board.
5. Adjust L2 (B-Y) to obtain symmetrical transient between (R-Y)→(B-Y) and (B-Y)→(R-Y) see (Fig 4-7).
6. Connect oscilloscope to pin ⑤ of CN2.
7. Confirm ID flip-flop output signal is as indicated in (Fig 4-8).

Fig. 4-6 < MONITOR PIN ⑮ of IC1 Connect

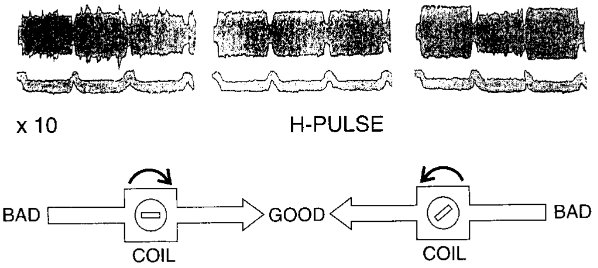
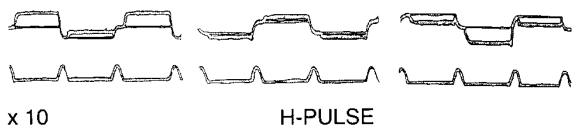


Fig. 4-7 < MONITOR PIN ② of IC1 Connect



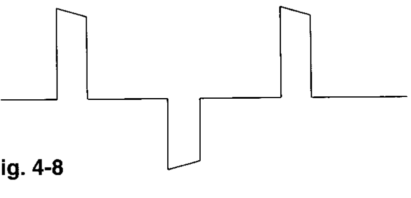


Fig. 4-8

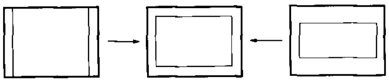
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode and select CXD2018.
2. Select and adjust each item in order to obtain the optimum image.

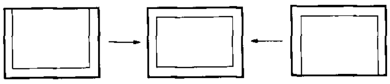
CXD2018

Item No	Adjustment item.	Data Amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP. V	12
13	HV COMP. H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	NON INTERLACE	ON
20	H SHIFT	26
21	N/S CORRECTION	ADJ.

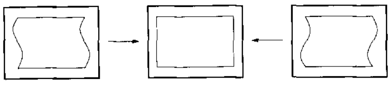
V SIZE



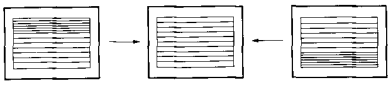
V SHIFT



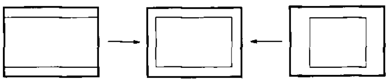
S CORRECTION



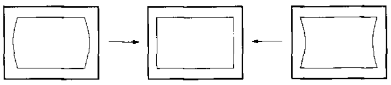
V LINEARITY



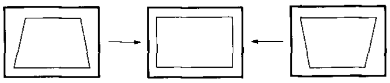
H SIZE



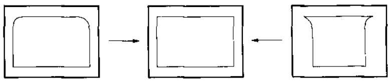
PIN AMP



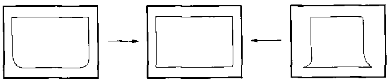
TILT



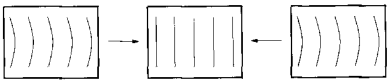
UPPER CORNER PIN



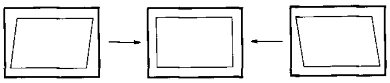
LOWER CORNER PIN



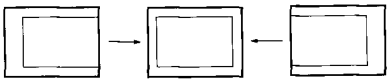
V BOW



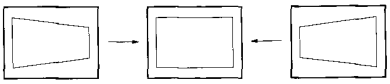
ANGLE



H SHIFT



N/S CORRECTION



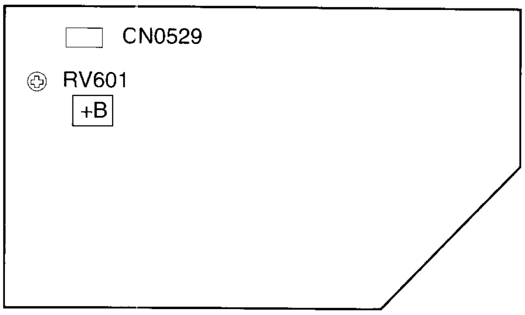
3. Press OK button to write data.

If the menu display prevents accurate adjustment, press to clear, to resume, press once again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

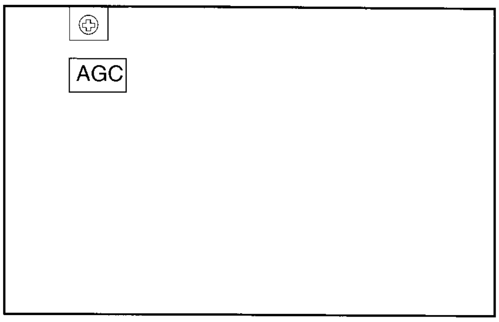
+B (+135V) ADJUSTMENT (RV601)

D BOARD



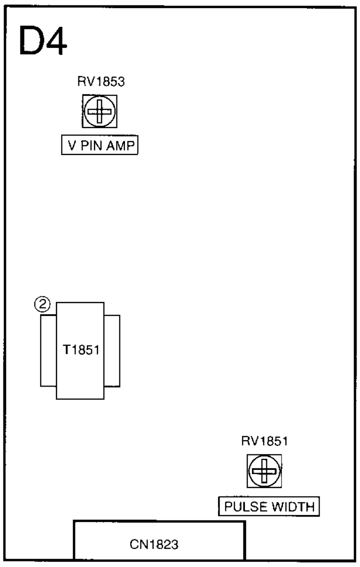
1. Switch on the power to the TV set.
2. Connect a digital multi-meter to pin ① of CN0529 on D board.
3. Adjust RV601 on D board to +135V ± 0.5V.

AGC ADJUSTMENT (IF BLOCK)

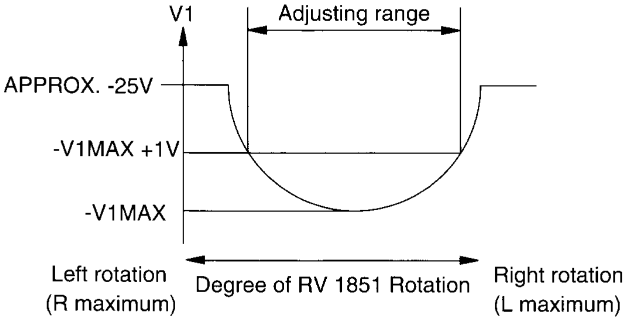


1. Receive an off-air signal.
2. Adjust the AGC VR so that there is no snow noise or cross-modulation visible on the screen.
3. Change the receiving channel and confirm status.

PULSE WIDTH & V-PIN ADJUSTMENTS (RV 1851/1853



1. Connect an oscilloscope to pin ② of T1851.
2. Preset RV-1853 to center of its range (mechanical center).
3. Adjust RV-1851 to obtain minimum amplitude.
4. Switch the oscilloscope input to D.C.and adjust RV-1853 to obtain -33.2 ± 0.5V.



4-3. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max., Ageing 2 Mode of CXA1587, TDA2595 is locked to CXA1587 via PIN 34 of μ-Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13	Display of Software Version and TV set configeration
14	Adjustment of N/S Correction
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Level for AV Sources
18	dummy
19	Stereo Seperation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA1587 (Only available in Prog 99)
42	Default setting of CXA2018 (Only available in Prog 99)
43	Default setting of CXA1526 (Only available in Prog 99)
44	(all Port High) Not yet
45	(all Port High) Not yet
46	IR Channel Pressetting Mode The channel pressetting can be done by a Special IR Transmitter
47-48	dummy
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by μ-Controller. (Not the channel data)

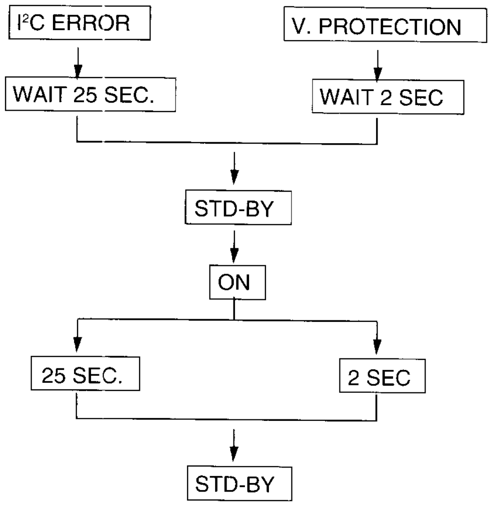
Note: For No 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched ON and TDA9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by the Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnostic system operates as follows.

- When the microprocessor is unable to receive an acknowledgement back from the device, the LED starts flashing according to the table below.



In the case of more than one error in parallel, the blinking error shows max priority according to the error number (e.g. error 2 and error 5 appear together, then LED,s show error 2).

ERROR TABLE

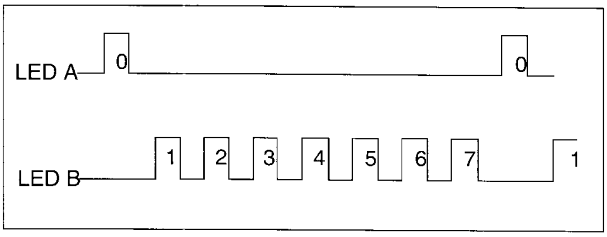
ERROR COUNT	IC TYPE	FUNCTION
1	II C BUS	SDA low
2	X24C16	EPROM
4	TDA9145	Colour decoder
5	CXA1587	RGB/Jungle
6	TDA6612	Sound processor
7	CXD2018	V deflection
8	CXA1545	AV switch
11	SDA5248	Text
13		V protection

Stand By LED blinking — No 1K return

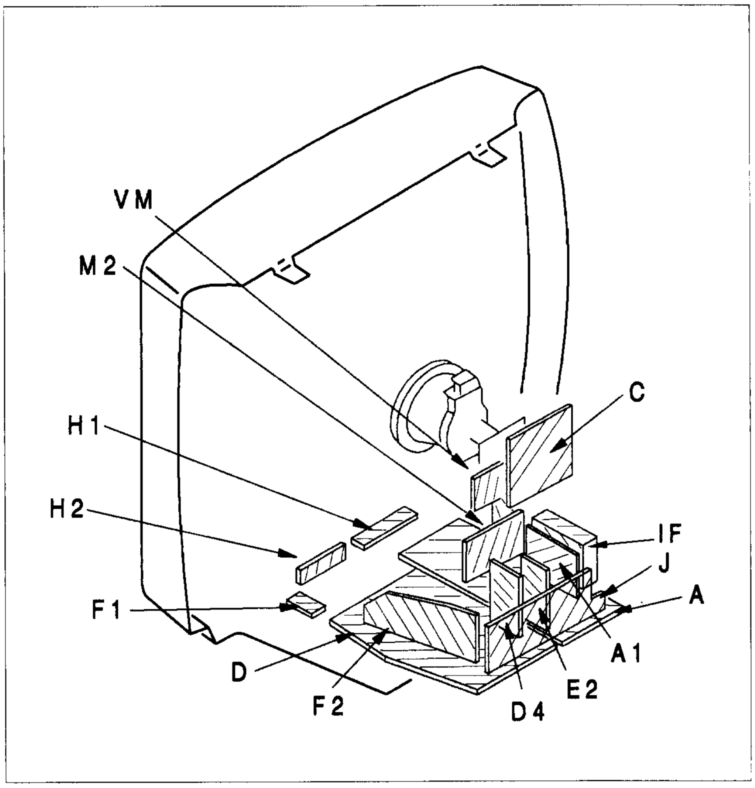
4-5. ERROR I²C BUS DIAGNOSTIC SYSTEM FOR AE2-B CHASSIS.

For all IC's used in the AE 2-B chassis which are necessary to obtain picture and sound there is an inbuilt I²C Bus diagnostic system.

In the case of no acknowledge bit, LED A and LED B start blinking as shown.



5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

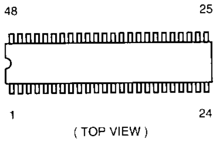
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm
Rating electrical power : ¼W

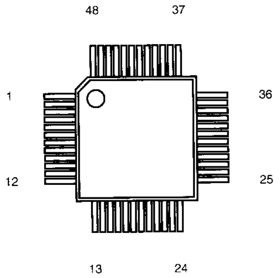
- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000KΩ
- -[W]- : nonflammable resistor.
- -[W~]- : fusible resistor.
- △ : internal component.
- ☐ : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ━━ : B + bus.
- ▬ ▬ : B − bus.
- ┄ : signal path.(RF)
- ⊥ : earth - ground
- ⏚ : earth - chassis

5-4. SEMICONDUCTORS

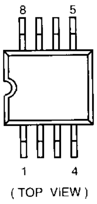
CXA1587S
CXA1855S


48
25
1
24
(TOP VIEW)

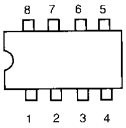
CXD2018Q


48
37
1
36
12
25
13
24

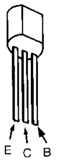
LM358D


8
5
1
4
(TOP VIEW)

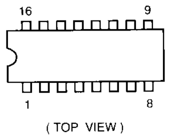
LM358P
LM393P
ST24C16CB1
TDA2822M
TDA4605-3
TEA2114
µPC358C
µPC393C



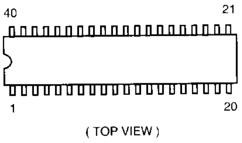
LM78L05ACZ
LM78L12ACZ
MCT7809CT
NJM78M09FA



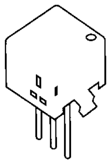
MC14053BCP
SN74LS221N
TDA4665
µPD4053BC


16
9
1
8
(TOP VIEW)

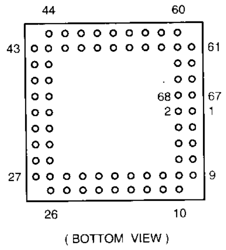
SAA7282P-ZP


40
21
1
20
(TOP VIEW)

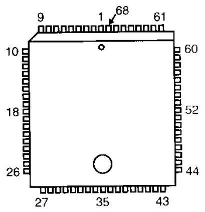
SBX1610-11
SBX1810-11



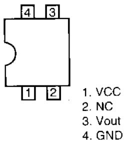
SDA30C163-2GEG


44
60
43
61
68
67
2
1
27
9
26
10
(BOTTOM VIEW)

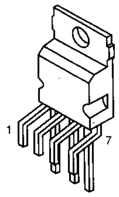
SDA5273P-C22-GEG


9
1
68
61
10
60
18
52
26
44
27
35
43

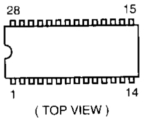
SFH617G-1


4
3
1
2
1. VCC
2. NC
3. Vout
4. GND

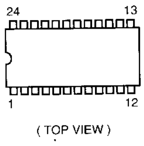
STV9379
TDA2052
TDA8138A



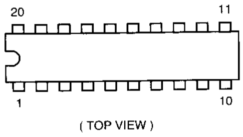
TDA4650/V4
TDA6612-5


28
15
1
14
(TOP VIEW)

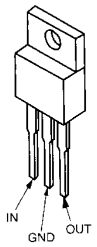
TDA9145/N2B


24
13
1
12
(TOP VIEW)

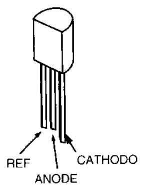
TDA8732


20
11
1
10
(TOP VIEW)

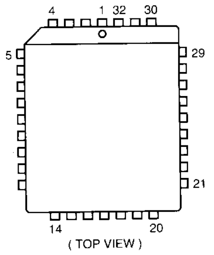
TEA7605



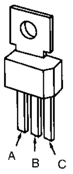
TL431CLP


REF
CATHODO
ANODE

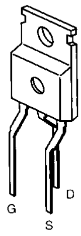
TMS27PC010A-15FMA


4
1
32
30
5
29
21
14
20
(TOP VIEW)

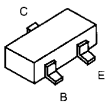
BF871



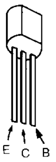
BUZ91A-E3155



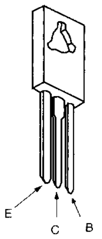
DTA124EK
DTA144EK
DTA144TK
DTC114EK
DTC124EK
DTC144EK
2SA1037K
2SA1162-G
2SC1623-L5L6
2SC2412K
2SC2413K



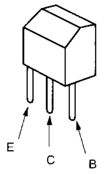
JA101
JC501
2SB1186
BF199
2SA1091-O
2SA1837
2SA733-K
2SC1890A-D
2SC2551-O



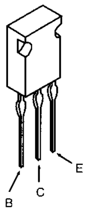
2SB1357
2SA1220A-P
2SB772-Q
2SC2688-LK



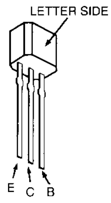
2SB734
2SD774-34



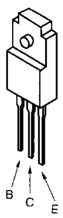
2SA2096-EF
2SD2096-EF



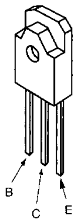
2SC2785-HFE


LETTER SIDE
E
C
B

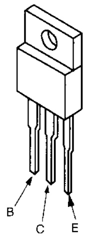
2SC4793
2SD1763A



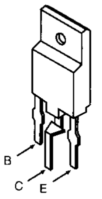
2SC4927-01



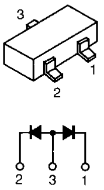
2SD795A-P
2SD2012
2SD2061



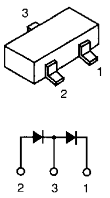
2SK1916-53-F50



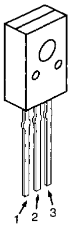
DAN202K
DAP202K



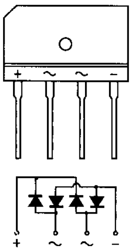
DA204K



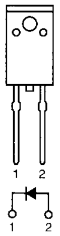
D10SC6M



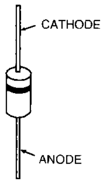
D4SB60L



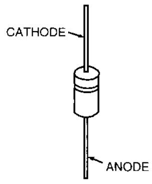
D5L60



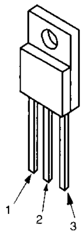
EGP20G
EL1Z
ERC25-06S
GP08D
RGP02
RU-3AM
RU-30ALFS1
RGP10G
RGP15G
R2K-V1
1SS120A


CATHODE
ANODE

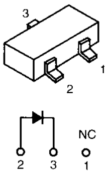
ERA85-009
MTZJ-13C
MTZJ-2.2A
MTZJ-3.6A
MTZJ-30B
MTZJ-33C
MTZJ-39C
MTZJ-5.6A
MTZJ-4.3B
MTZJ-5.6B
MTZJ-7.5A
MTZJ-9.1
MTZJ-10B
MTZJ-12B
MTZJ-15A
RD12ESB2
RD5.6ESB1
RD5.6ESB2
RD6.2ESB2
RD7.5ESB2
RD10ESB2
RD15ESB1
UZ-4.7BSC
1SS133


CATHODE
ANODE

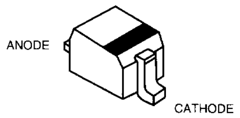
ESAB92-02
ESAC92M-02



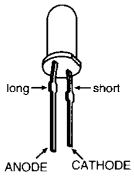
MA3030H
MA3039H



1SV214
1SV217

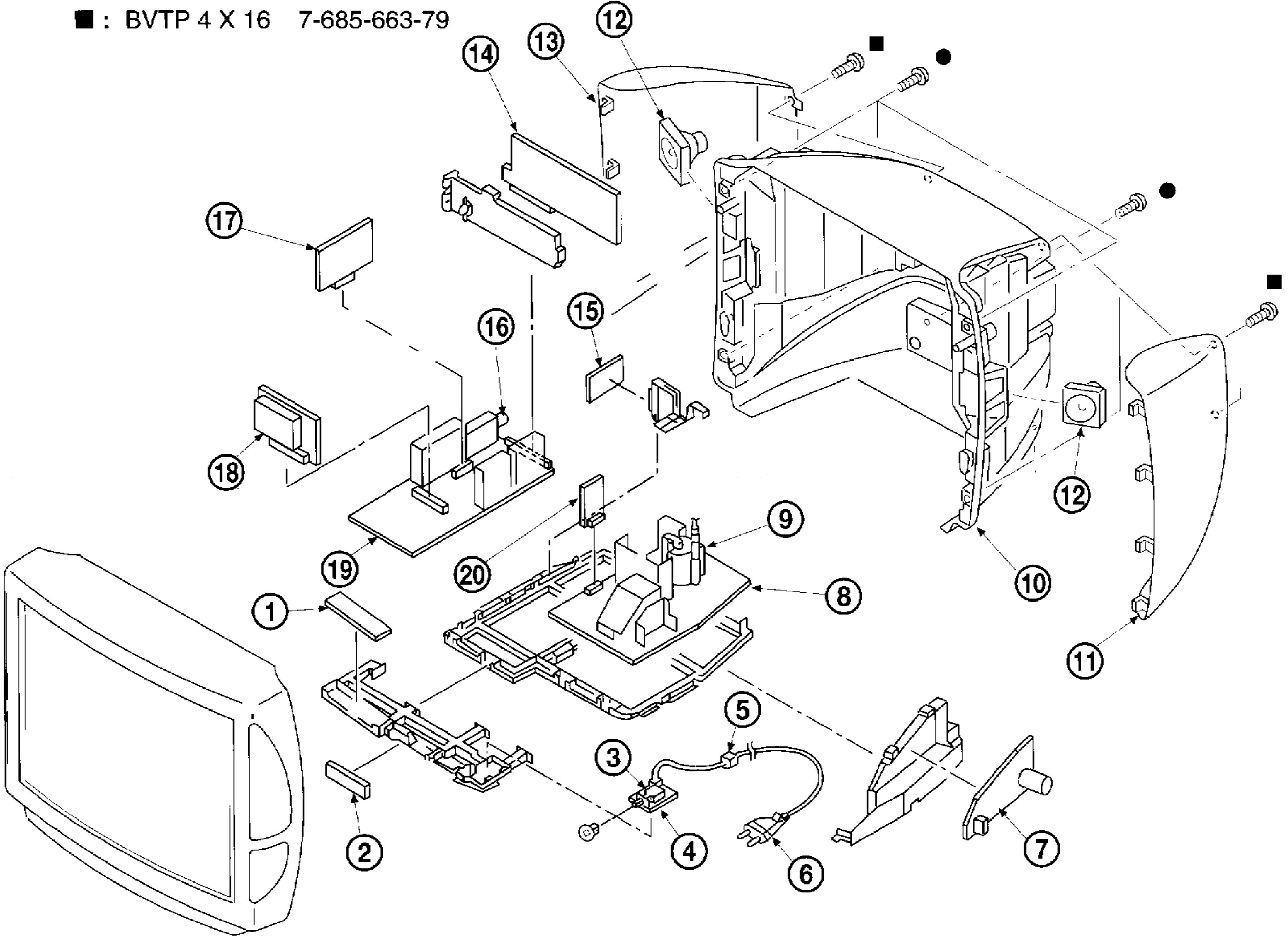

ANODE
CATHODE

LD-201VR


long
short
ANODE
CATHODE

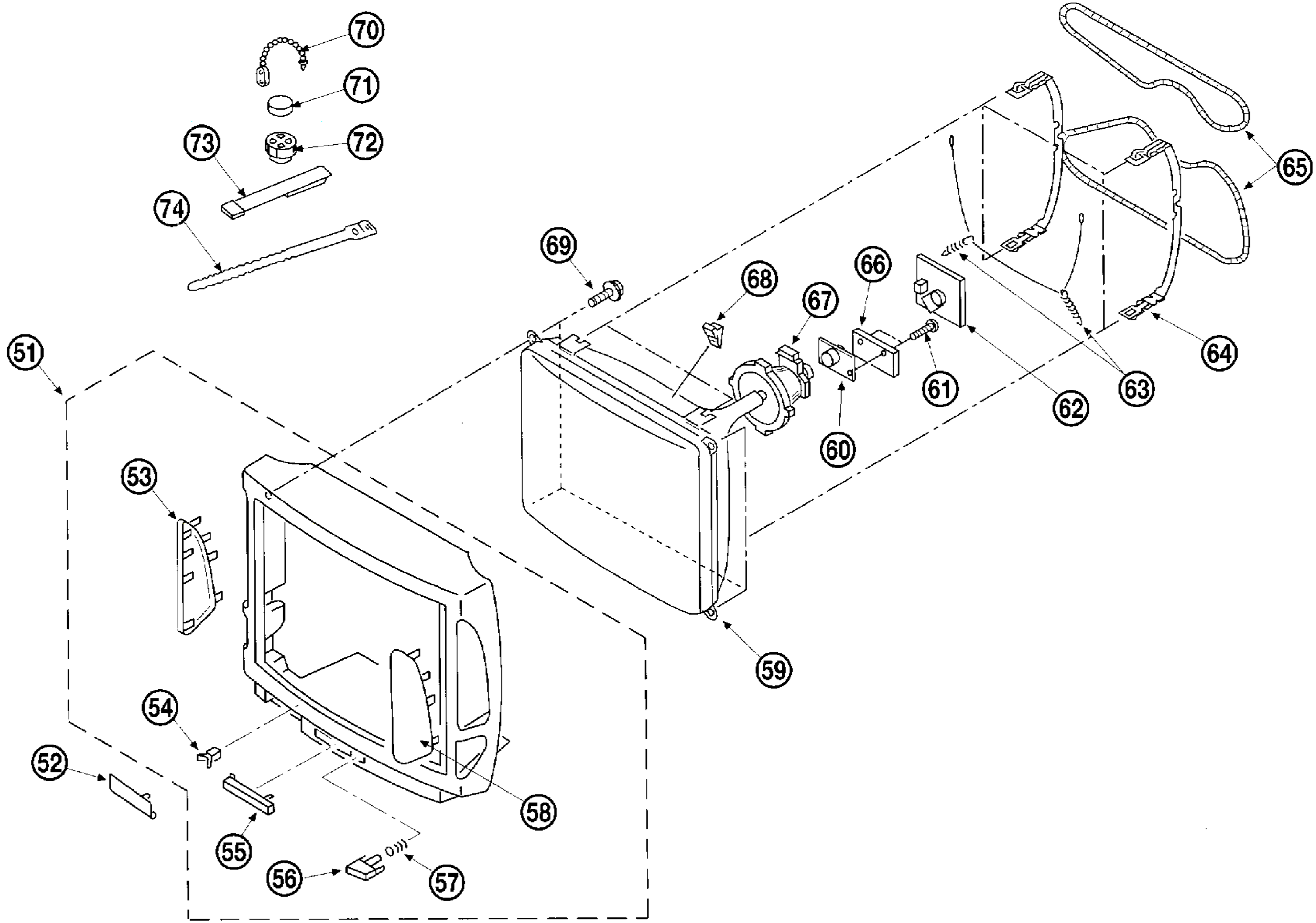
6-1. CHASSIS

● : BVTP 3 X 12 7-685-648-79
■ : BVTP 4 X 16 7-685-663-79



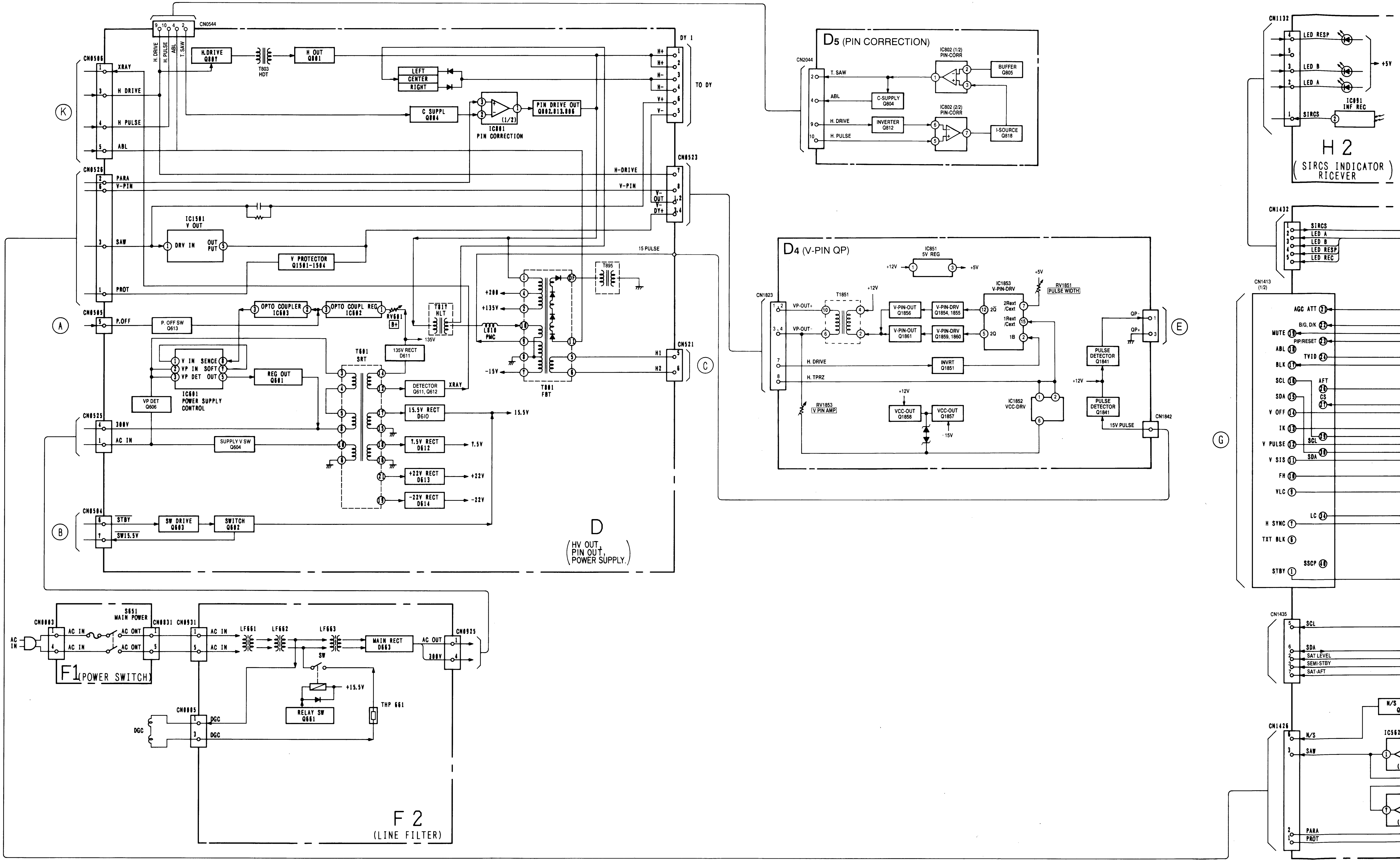
⑭
⑬
⑫
■
●
●
■
⑰
⑯
⑮
⑱
⑫
⑨
⑲
⑳
⑩
⑧
①
⑪
⑤
③
②
④
⑥
⑦

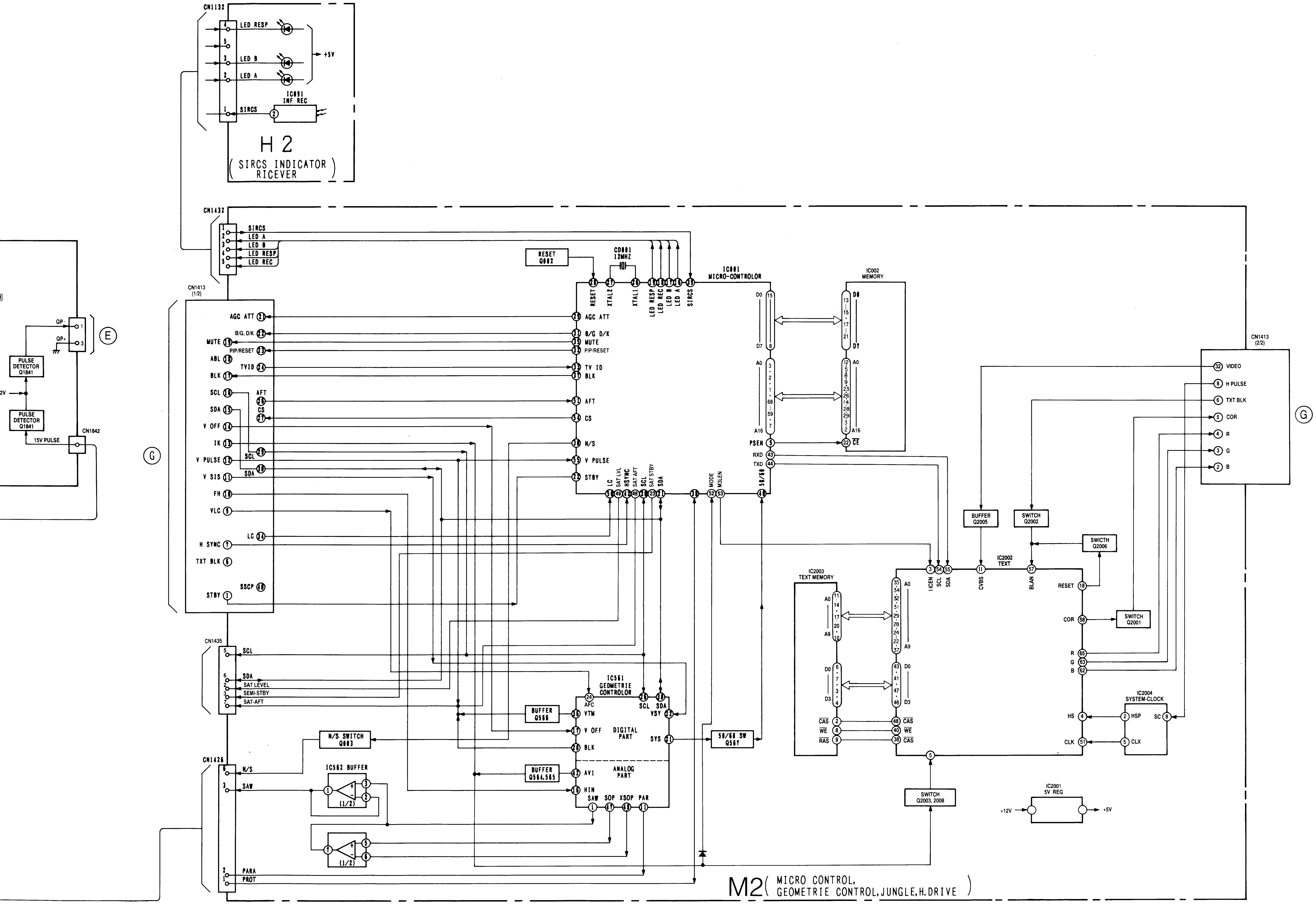
6-2. PICTURE TUBE

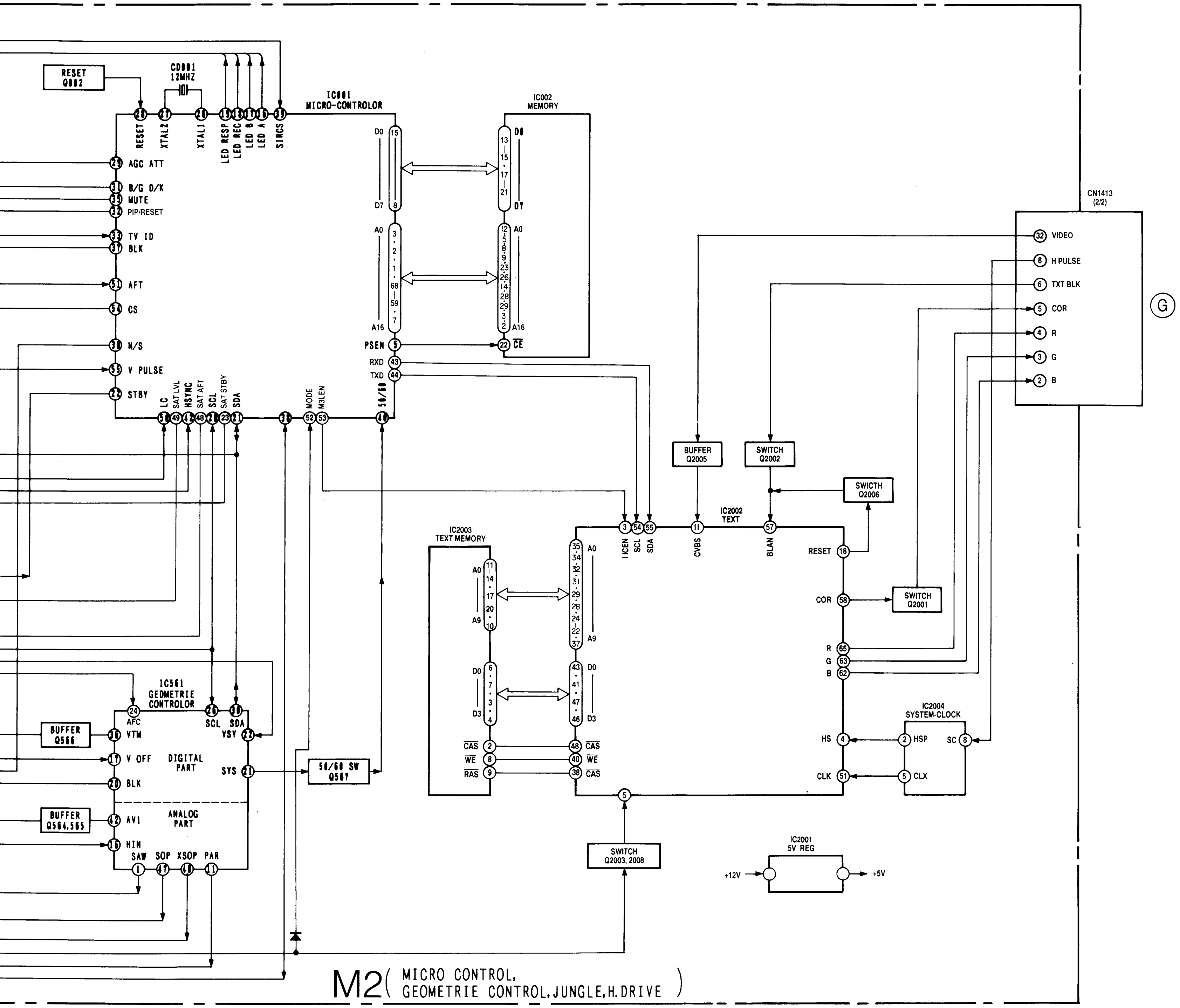

⑦⓪
⑦①
⑦②
⑦③
⑦④
⑥⑤
⑥⑨
⑥⑧
⑥⑦
⑥⑥
⑤①
⑥④
⑥①
⑥③
⑥②
⑥⓪
⑤③
⑤⑨
⑤④
⑤②
⑤⑧
⑤⑤
⑤⑥
⑤⑦

DIAGRAMS

5-1. BLOCK DIAGRAM (1)

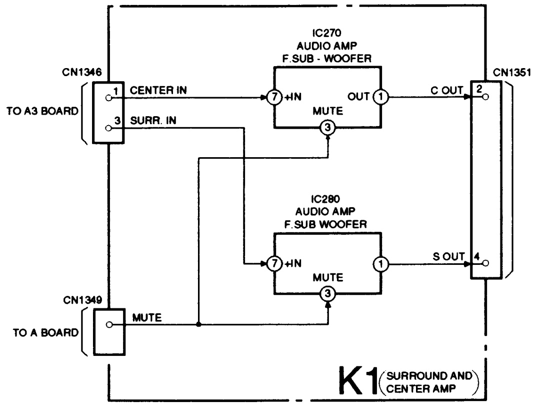

CN0544
H. DRIVE
H. PULSE
ABL
T. SAW
CN0506
XRAY
H DRIVE
H PULSE
ABL
K
H.DRIVE Q807
T803 HDT
H OUT Q801
LEFT
CENTER
RIGHT
C SUPPL Q804
IC801 PIN CORRECTION
(1/2)
PIN DRIVE OUT Q802,813,806
DY 1
H+
H-
V+
V-
TO DY
CN0523
H-DRIVE
V-PIN
V-OUT
V-DY+
CN0526
PARA
V-PIN
SAW
PROT
IC1501 V OUT
DRV IN
OUT PUT
V PROTECTOR Q1501-1504
15 PULSE
T895
CN0505
P.OFF
A
P. OFF SW Q613
OPTO COUPLER IC603
OPTO COUPL REG IC602
RV601
B+
T801 HLT
135V
L810 PMC
+200
+135V
-15V
T801 FBT
CN521
H1
H2
C
135V RECT D611
T601 SRT
V IN SENCE
VP IN SOFT
VP DET OUT
IC601 POWER SUPPLY CONTROL
VP DET Q606
REG OUT Q601
DETECTOR Q611, Q612
XRAY
15.5V RECT D610
15.5V
7.5V RECT D612
7.5V
+22V RECT D613
+22V
-22V RECT D614
-22V
CN0525
300V
AC IN
SUPPLY V SW Q604
CN0504
STBY
SW15.5V
B
SW DRIVE Q603
SWITCH Q602
D
(HV OUT, PIN OUT, POWER SUPPLY.)
CN0003
AC IN
S651 MAIN POWER
CN0031
CN0931
LF661
LF662
LF663
MAIN RECT D663
AC OUT
CN0925
300V
SW
+15.5V
RELAY SW Q661
THP 661
CN0005
DGC
F1 (POWER SWITCH)
F 2 (LINE FILTER)
D5 (PIN CORRECTION)
CN2044
T. SAW
ABL
H. DRIVE
H. PULSE
C-SUPPLY Q804
INVERTER Q812
IC802 (1/2) PIN-CORR
IC802 (2/2) PIN-CORR
BUFFER Q805
I-SOURCE Q818
D4 (V-PIN QP)
IC851 5V REG
+12V
+5V
CN1823
VP-OUT+
VP-OUT-
T1851
V-PIN-OUT Q1856
V-PIN-DRV Q1854, 1855
V-PIN-OUT Q1861
V-PIN-DRV Q1859, 1860
IC1853 V-PIN-DRV
2Rext /Cext
1Rext /Cext
RV1851 PULSE WIDTH
QP-
QP+
E
H. DRIVE
INVRT Q1851
H. TPRZ
PULSE DETECTOR Q1841
RV1853 V PIN AMP
VCC-OUT Q1858
VCC-OUT Q1857
-15V
IC1852 VCC-DRV
15V PULSE
CN1842
CN1132
LED RESP
LED B
LED A
SIRCS
IC091 INF REC
H 2 (SIRCS INDICATOR RICEVER)
CN1432
SIRCS
LED A
LED B
LED RESP
LED REC
CN1413 (1/2)
G
AGC ATT
B/G, D/K
MUTE
PIP/RESET
ABL
TVID
BLK
SCL
AFT
SDA
CS
V OFF
IK
V PULSE
SCL
V SIS
SDA
FH
VLC
LC
H SYNC
TXT BLK
STBY
SSCP
CN1435
SCL
SDA
SAT LEVEL
SEMI-STBY
SAT-AFT
CN1426
N/S
SAW
IC562
PARA
PROT

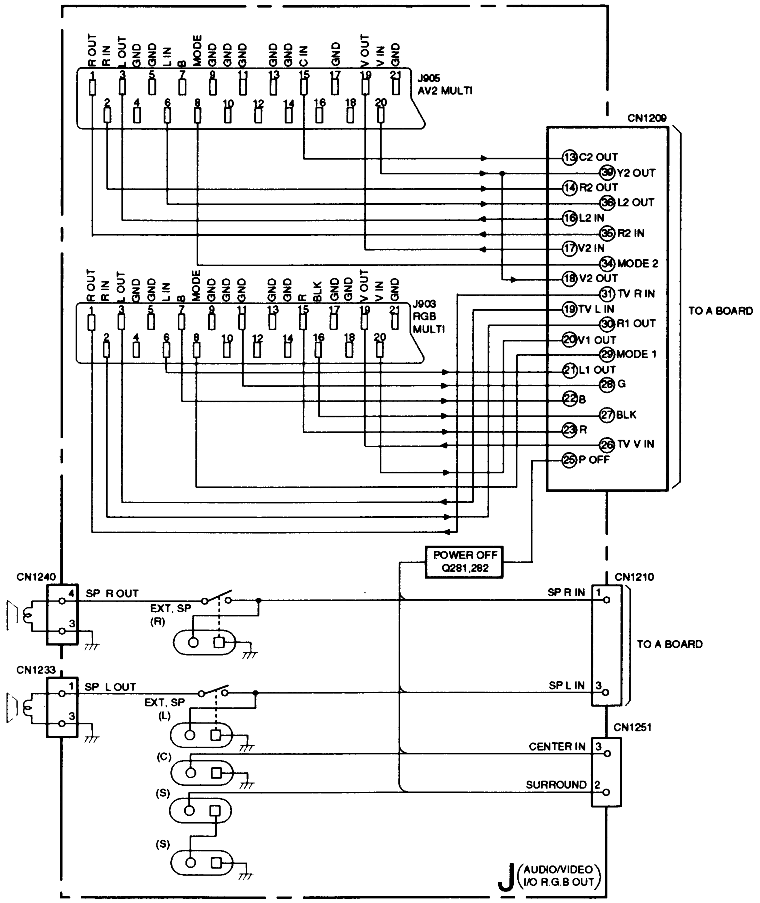

CN1132
LED RESP
LED B
LED A
SIRCS
+5V
IC001
INF REC
H 2
(SIRCS INDICATOR RICEVER)
CN1432
SIRCS
LED A
LED B
LED RESP
LED REC
RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLOR
RESET
XTAL2
XTAL1
IC002 MEMORY
D0
D7
A0
A16
PSEN
RXD
TXD
CE
CN1413 (1/2)
AGC ATT
B/G, D/K
MUTE
PIP/RESET
ABL
TVID
BLK
SCL
SDA
AFT
CS
V OFF
IK
V PULSE
V SIS
FH
VLC
LC
H SYNC
TXT BLK
SSCP
STBY
N/S
SAT LVL
HSYNC
SAT AFT
SAT STBY
MODE
M3LEN
50/60
CN1435
SAT LEVEL
SEMI-STBY
SAT-AFT
CN1426
SAW
PARA
PROT
IC561 GEOMETRIE CONTROLOR
AFC
VSY
VTM
V OFF
DIGITAL PART
SYS
ANALOG PART
AV1
HIN
SOP
XSOP
PAR
BUFFER Q566
BUFFER Q564,565
N/S SWITCH Q003
IC562 BUFFER
(1/2)
50/60 SW Q567
CN1413 (2/2)
VIDEO
H PULSE
TXT BLK
COR
R
G
B
BUFFER Q2005
SWITCH Q2002
SWICTH Q2006
IC2002 TEXT
IICEN
CVBS
BLAN
RESET
IC2003 TEXT MEMORY
A9
D3
CAS
WE
RAS
SWITCH Q2001
IC2004 SYSTEM-CLOCK
HS
HSP
SC
CLK
CLX
SWITCH Q2003, 2008
IC2001 5V REG
+12V
+5V
PULSE DETECTOR Q1841
QP-
QP+
15V PULSE
CN1842
E
G
M2 (MICRO CONTROL, GEOMETRIE CONTROL, JUNGLE, H.DRIVE)

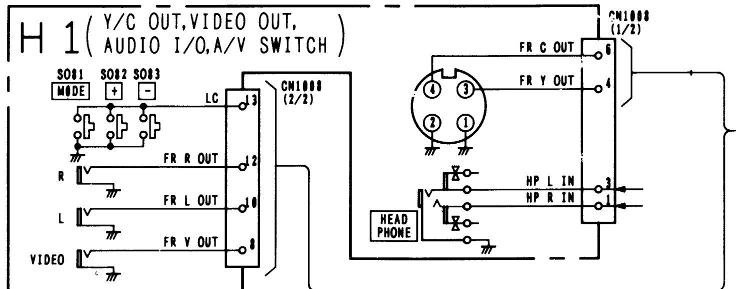

RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLOR
RESET
XTAL2
XTAL1
LED RESP
LED REC
LED B
LED A
SIRCS
AGC ATT
B/G D/K
MUTE
PIP/RESET
TV ID
BLK
AFT
CS
N/S
V PULSE
STBY
LC
SAT LVL
HSYNC
SAT AFT
SCL
SAT STBY
SDA
MODE
M3LEN
50/60
D0
D7
A0
A16
PSEN
RXD
TXD
IC002 MEMORY
CE
CN1413 (2/2)
VIDEO
H PULSE
TXT BLK
COR
R
G
B
G
BUFFER Q2005
SWITCH Q2002
SWITCH Q2006
IC2002 TEXT
ICEN
SCL
SDA
CVBS
BLAN
RESET
COR
SWITCH Q2001
HS
CLK
IC2004 SYSTEM-CLOCK
HSP
SC
CLX
IC2003 TEXT MEMORY
A9
D3
CAS
WE
RAS
SWITCH Q2003, 2008
IC2001 5V REG
+12V
+5V
IC561 GEOMETRIE CONTROLOR
AFC
VTM
V OFF
BLK
AVI
HIN
SAW
SOP
XSOP
PAR
VSY
SYS
DIGITAL PART
ANALOG PART
BUFFER Q566
BUFFER Q564,565
50/60 SW Q567

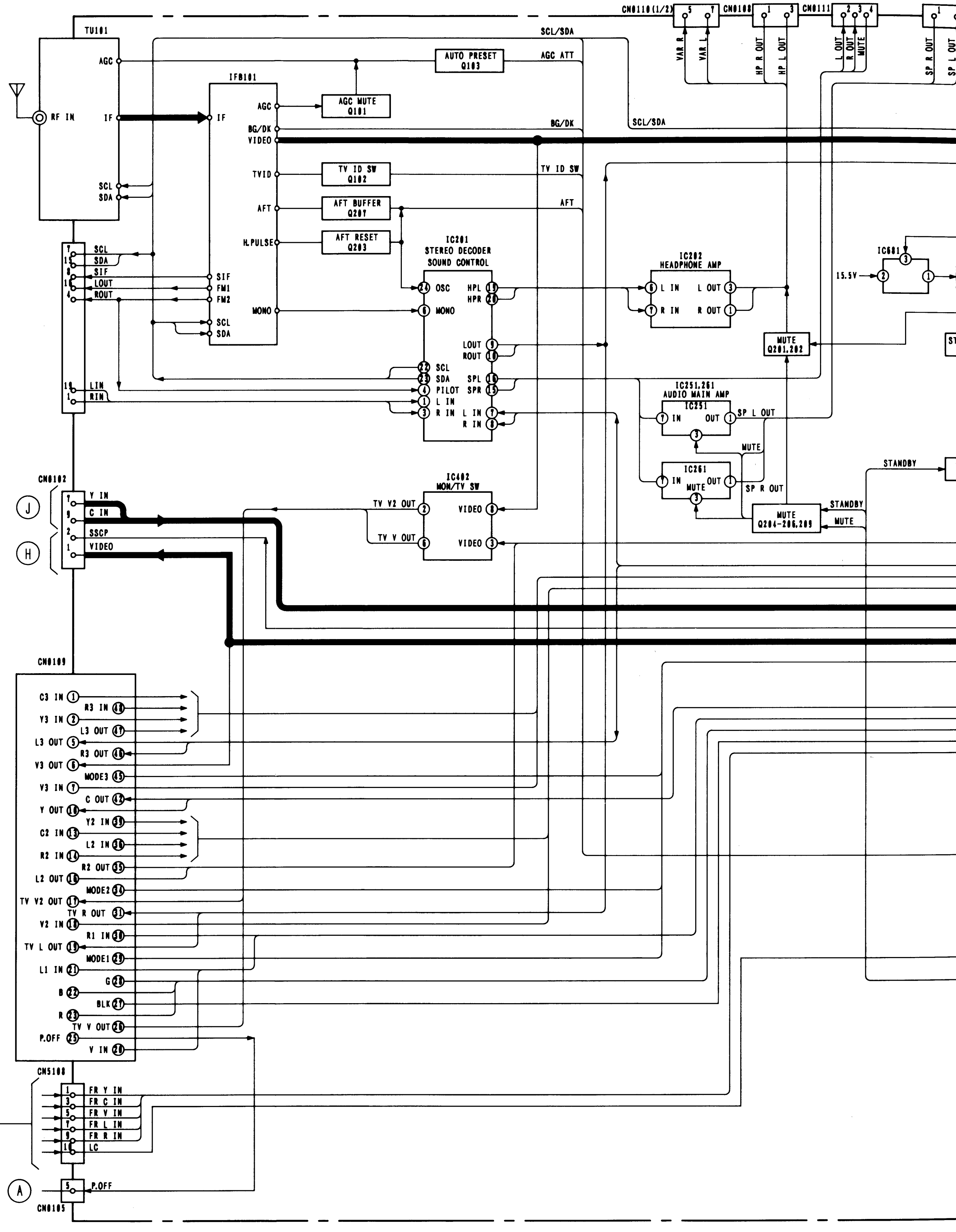
M2(MICRO CONTROL,
GEOMETRIE CONTROL, JUNGLE, H.DRIVE)

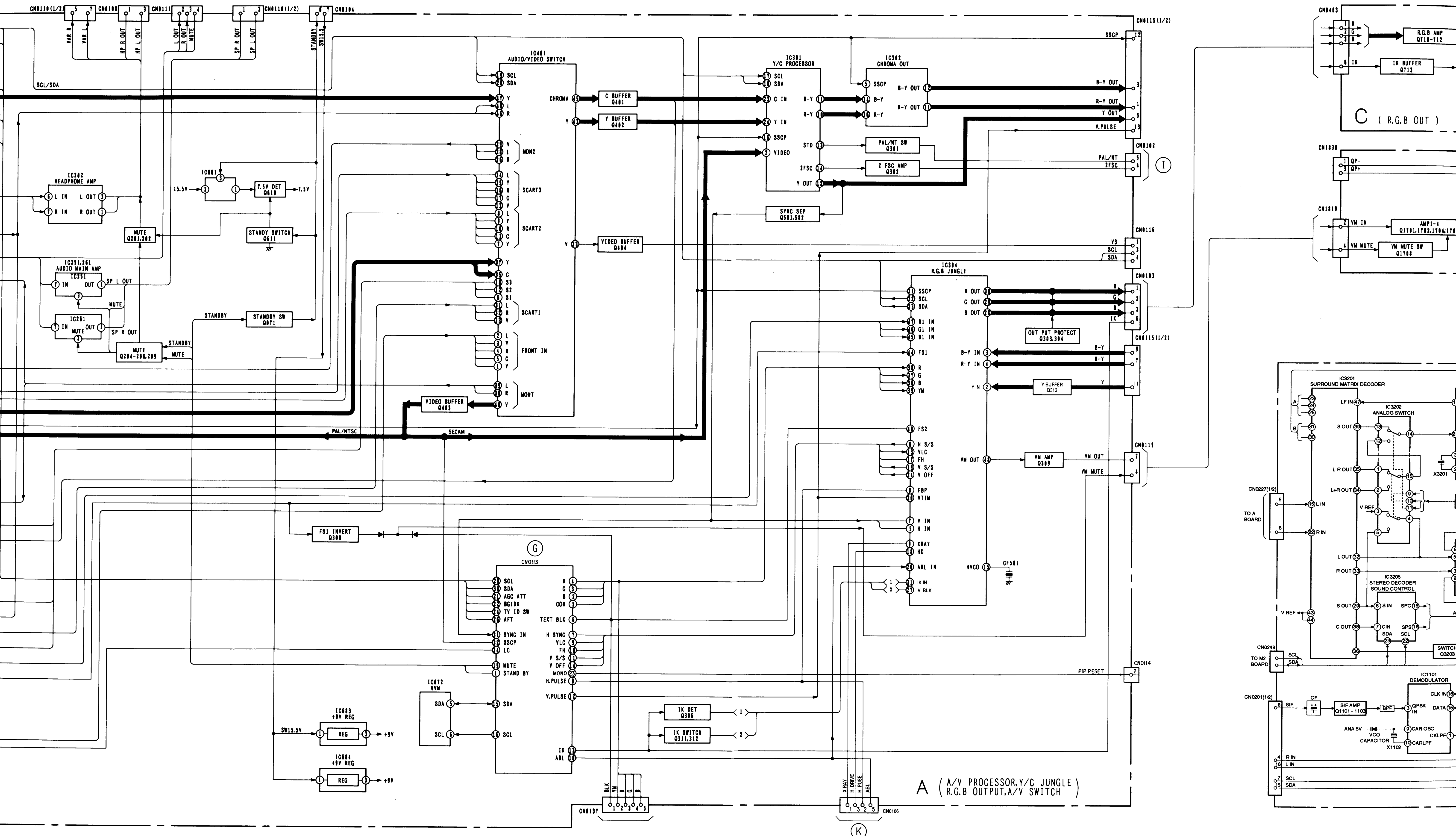
BLOCK DIAGRAM (2)

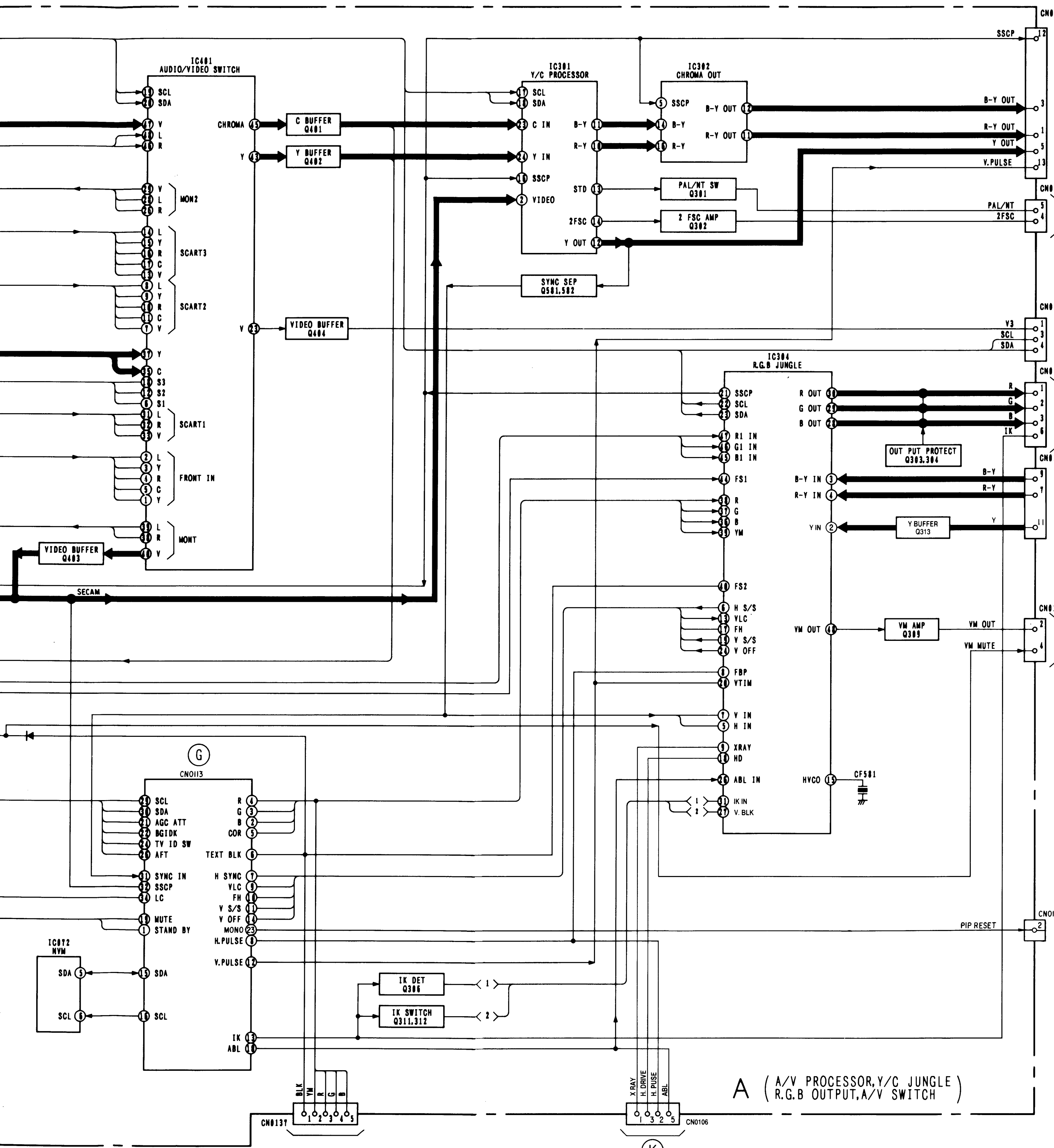

CN1346
TO A3 BOARD
1
CENTER IN
3
SURR. IN
IC270
AUDIO AMP
F.SUB - WOOFER
7 +IN
OUT 1
MUTE
3
C OUT
CN1351
2
IC280
AUDIO AMP
F.SUB WOOFER
7 +IN
1
MUTE
3
S OUT
4
CN1349
TO A BOARD
MUTE
K1 (SURROUND AND CENTER AMP)

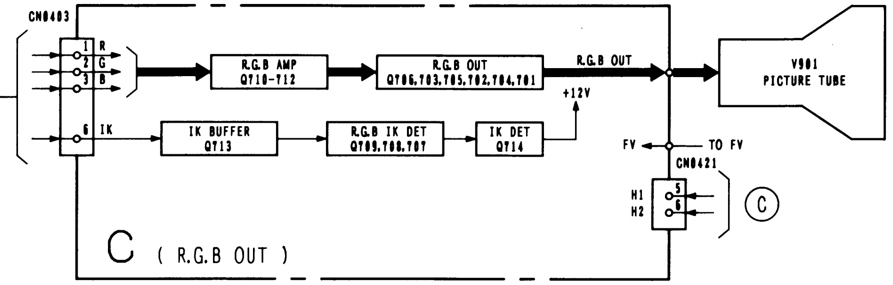

R OUT
R IN
L OUT
GND
GND
L IN
B
MODE
GND
GND
GND
GND
GND
C IN
GND
V OUT
V IN
GND
J905
AV2 MULTI
CN1209
13 C2 OUT
39 Y2 OUT
14 R2 OUT
36 L2 OUT
16 L2 IN
35 R2 IN
17 V2 IN
34 MODE 2
18 V2 OUT
31 TV R IN
19 TV L IN
30 R1 OUT
20 V1 OUT
29 MODE 1
21 L1 OUT
28 G
22 B
27 BLK
23 R
26 TV V IN
25 P OFF
TO A BOARD
R OUT
R IN
L OUT
GND
GND
L IN
B
MODE
GND
GND
GND
GND
GND
R
BLK
GND
GND
V OUT
V IN
GND
J903
RGB
MULTI
POWER OFF
Q281,282
CN1240
4
SP R OUT
3
EXT. SP
(R)
CN1210
SP R IN
1
TO A BOARD
CN1233
1
SP L OUT
3
EXT. SP
(L)
SP L IN
3
CN1251
(C)
CENTER IN
3
(S)
SURROUND
2
(S)
J (AUDIO/VIDEO I/O R.G.B OUT)

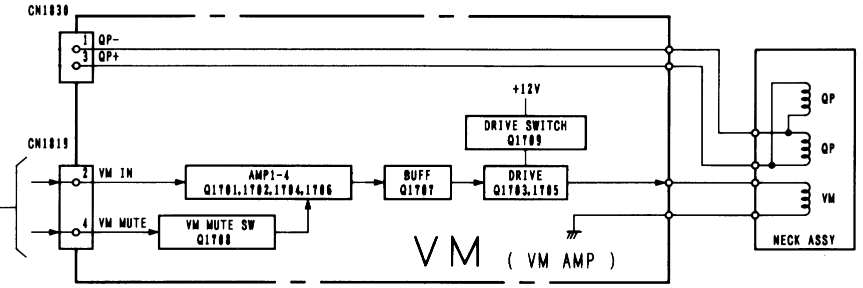

H 1 (Y/C OUT, VIDEO OUT, AUDIO I/O, A/V SWITCH)
S001
MODE
S002
+
S003
-
LC
13
CN1000
(2/2)
FR R OUT
12
R
FR L OUT
10
L
FR V OUT
8
VIDEO
FR C OUT
6
FR Y OUT
4
CN1000
(1/2)
4
3
2
1
HP L IN
3
HP R IN
1
HEAD
PHONE

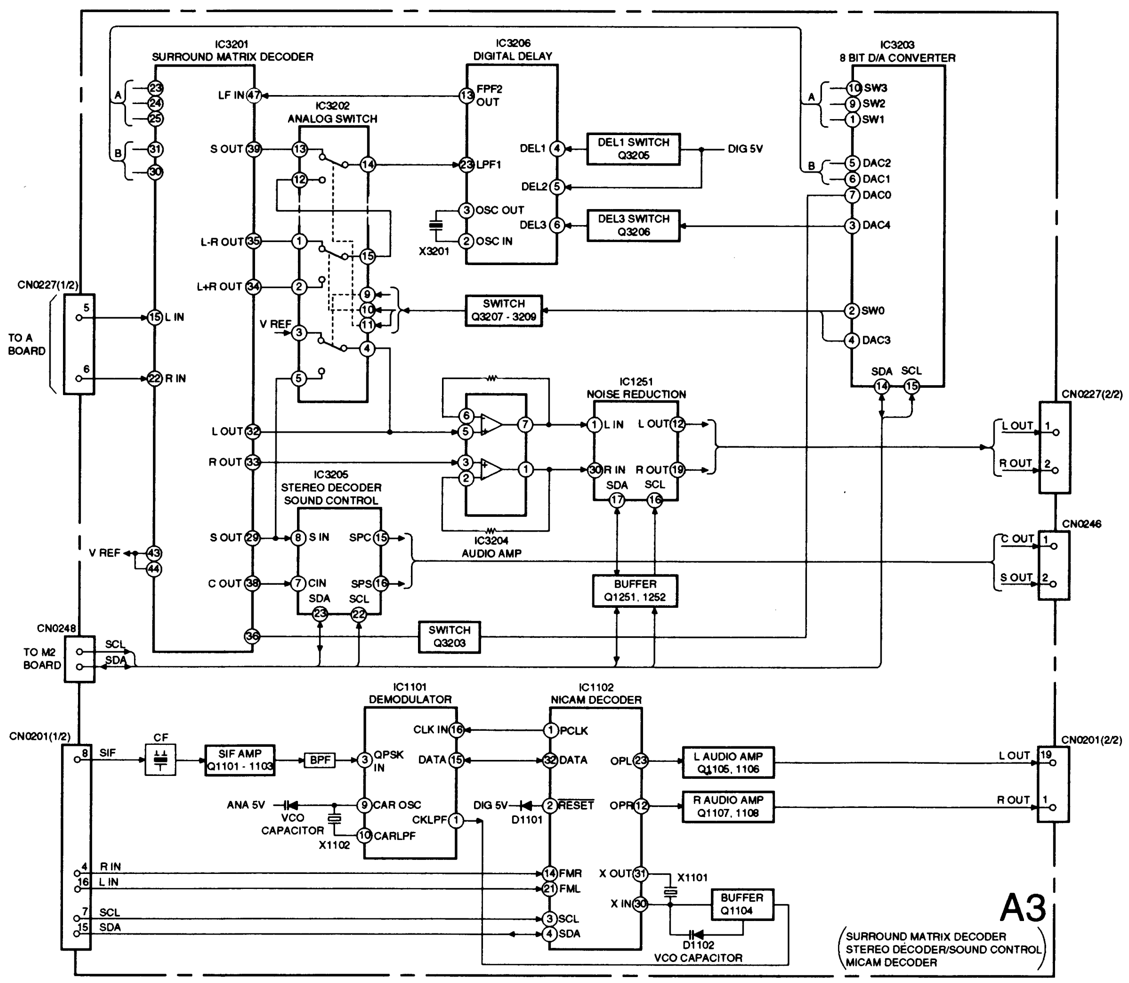

CN0110(1/2)
5
7
VAR R
VAR L
CN0108
1
3
HP R OUT
HP L OUT
CN0111
2
3
4
L OUT
R OUT
MUTE
1
SP R OUT
SP L OUT
TU101
AGC
RF IN
IF
SCL
SDA
SCL/SDA
AUTO PRESET
Q103
AGC ATT
IF0101
AGC
AGC MUTE
Q101
IF
BG/DK
VIDEO
BG/DK
SCL/SDA
TVID
TV ID SW
Q102
TV ID SW
AFT
AFT BUFFER
Q207
AFT
H.PULSE
AFT RESET
Q203
SIF
FM1
FM2
SCL
SDA
MONO
7
15
8
16
4
SCL
SDA
SIF
LOUT
ROUT
19
1
LIN
RIN
IC201
STEREO DECODER
SOUND CONTROL
24 OSC
HPL 19
HPR 20
6 MONO
LOUT 9
ROUT 10
22 SCL
23 SDA
SPL 16
4 PILOT
SPR 15
1 L IN
3 R IN
L IN 7
R IN 8
IC202
HEADPHONE AMP
6 L IN
L OUT 3
7 R IN
R OUT 1
IC601
15.5V
2
3
1
MUTE
Q201,202
ST
IC251,261
AUDIO MAIN AMP
IC251
7 IN
OUT 1
3
SP L OUT
MUTE
IC261
7 IN
MUTE
OUT 1
3
SP R OUT
STANDBY
MUTE
Q204-206,209
STANDBY
MUTE
CN0102
J
H
7
Y IN
9
C IN
2
SSCP
1
VIDEO
IC402
MON/TV SW
TV V2 OUT 2
VIDEO 8
TV V OUT 6
VIDEO 3
CN0109
C3 IN 1
R3 IN 48
Y3 IN 2
L3 OUT 47
L3 OUT 5
R3 OUT 46
V3 OUT 6
MODE3 45
V3 IN 7
C OUT 42
Y OUT 10
Y2 IN 39
C2 IN 13
L2 IN 36
R2 IN 14
R2 OUT 35
L2 OUT 16
MODE2 34
TV V2 OUT 17
TV R OUT 31
V2 IN 18
R1 IN 30
TV L OUT 19
MODE1 29
L1 IN 21
G 28
B 22
BLK 27
R 23
TV V OUT 26
P.OFF 25
V IN 20
CN5100
1
FR Y IN
3
FR C IN
5
FR V IN
7
FR L IN
9
FR R IN
10
LC
A
5
P.OFF
CN0105


CN0110(1/2)
CN0108
CN0111
CN0110(1/2)
CN0104
VAR R
VAR L
HP R OUT
HP L OUT
L OUT
R OUT
MUTE
SP R OUT
SP L OUT
STANDBY
SW15.5
SCL/SDA
IC401
AUDIO/VIDEO SWITCH
SCL
SDA
Y
L
R
MON2
SCART3
SCART2
SCART1
FRONT IN
MONT
CHROMA
C BUFFER Q401
Y BUFFER Q402
VIDEO BUFFER Q404
VIDEO BUFFER Q403
IC202
HEADPHONE AMP
L IN
R IN
L OUT
R OUT
IC601
15.5V
7.5V DET Q610
7.5V
STANDY SWITCH Q611
MUTE Q201,202
IC251,261
AUDIO MAIN AMP
IC251
IC261
SP L OUT
SP R OUT
MUTE
STANDBY
STANDBY SW Q071
MUTE Q204-206,209
PAL/NTSC
SECAM
IC301
Y/C PROCESSOR
C IN
Y IN
SSCP
VIDEO
STD
2FSC
Y OUT
B-Y
R-Y
IC302
CHROMA OUT
B-Y OUT
R-Y OUT
PAL/NT SW Q301
2 FSC AMP Q302
SYNC SEP Q501,502
CN0115(1/2)
SSCP
B-Y OUT
R-Y OUT
Y OUT
V.PULSE
CN0102
PAL/NT
2FSC
I
CN0116
V3
SCL
SDA
CN0103
R
G
B
IK
CN0115(1/2)
CN0119
VM OUT
VM MUTE
CN0114
PIP RESET
IC304
R.G.B JUNGLE
SSCP
SCL
SDA
R1 IN
G1 IN
B1 IN
FS1
R
G
B
YM
FS2
H S/S
VLC
FH
V S/S
V OFF
FBP
VTIM
V IN
H IN
XRAY
HD
ABL IN
IK IN
V. BLK
R OUT
G OUT
B OUT
OUT PUT PROTECT Q303,304
B-Y IN
R-Y IN
Y IN
Y BUFFER Q313
VM OUT
VM AMP Q309
HVCO
CF501
FS1 INVERT Q308
G
CN0113
SCL
SDA
AGC ATT
BGIDK
TV ID SW
AFT
SYNC IN
SSCP
LC
MUTE
STAND BY
SDA
SCL
R
G
B
COR
TEXT BLK
H SYNC
VLC
FH
V S/S
V OFF
MONO
H.PULSE
V.PULSE
IK
ABL
IC072
NVM
IC603
+9V REG
IC604
+9V REG
SW15.5V
REG
+9V
IK DET Q306
IK SWITCH Q311,312
CN0137
BLK
YM
R
G
B
CN0106
X.RAY
H.DRIVE
H.PUSE
ABL
K
A (A/V PROCESSOR,Y/C JUNGLE R.G.B OUTPUT,A/V SWITCH)
CN0403
R.G.B AMP Q710-712
IK BUFFER Q713
C (R.G.B OUT)
CN1830
QP-
QP+
CN1819
VM IN
VM MUTE
AMP1-4 Q1701,1702,1704,170
VM MUTE SW Q1708
IC3201
SURROUND MATRIX DECODER
LF IN
S OUT
L-R OUT
L+R OUT
V REF
L OUT
R OUT
C OUT
IC3202
ANALOG SWITCH
X3201
CN0227(1/2)
TO A BOARD
L IN
R IN
IC3205
STEREO DECODER SOUND CONTROL
S IN
CIN
SDA
SCL
SPC
SPS
SWITCH Q3203
CN0248
TO M2 BOARD
SCL
SDA
CN0201(1/2)
SIF
CF
SIF AMP Q1101-1103
BPF
IC1101
DEMODULATOR
QPSK IN
CLK IN
DATA
CAR OSC
CKLPF
CARLPF
ANA 5V
VCO CAPACITOR
X1102
R IN
L IN
SCL
SDA

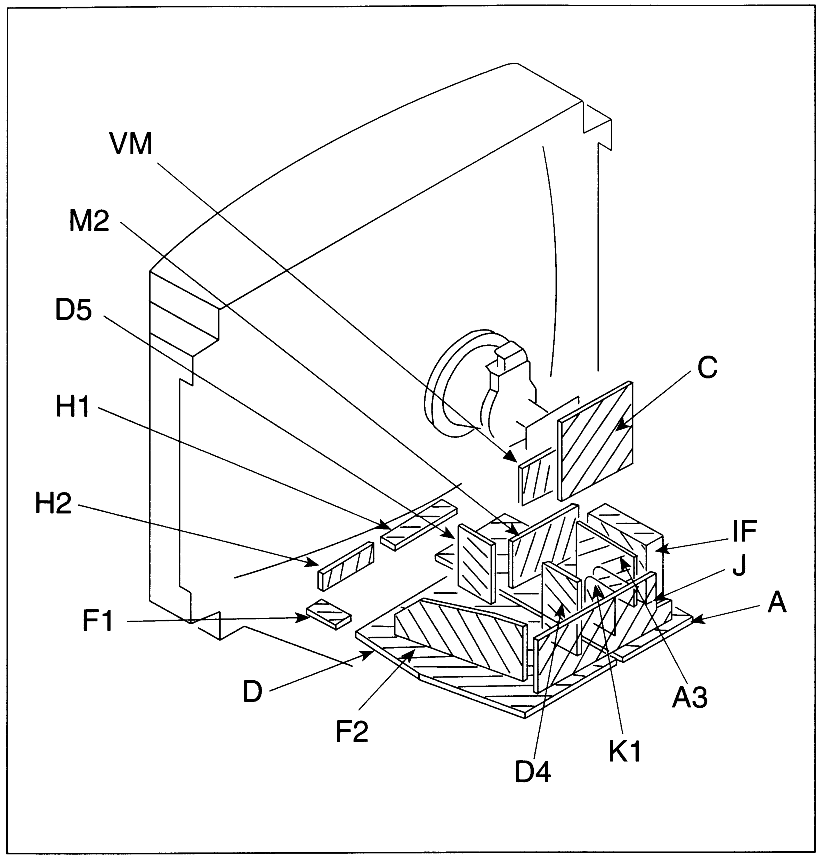

IC401 AUDIO/VIDEO SWITCH
SCL
SDA
CHROMA
Y
C BUFFER Q401
Y BUFFER Q402
MON2
SCART3
SCART2
SCART1
FRONT IN
MONT
VIDEO BUFFER Q404
VIDEO BUFFER Q403
SECAM
IC301 Y/C PROCESSOR
C IN
Y IN
SSCP
VIDEO
STD
2FSC
Y OUT
B-Y
R-Y
IC302 CHROMA OUT
B-Y OUT
R-Y OUT
PAL/NT SW Q301
2 FSC AMP Q302
SYNC SEP Q501,502
CN0115(1/2)
Y OUT
V.PULSE
CN0102
PAL/NT
2FSC
I
CN0116
V3
CN0103
IC304 R.G.B JUNGLE
R OUT
G OUT
B OUT
R1 IN
G1 IN
B1 IN
FS1
YM
FS2
H S/S
VLC
FH
V S/S
V OFF
FBP
VTIM
Y IN
H IN
XRAY
HD
ABL IN
IK IN
V.BLK
HVCO
CF501
OUT PUT PROTECT Q303,304
Y BUFFER Q313
VM OUT
VM AMP Q309
VM MUTE
CN0119
G
CN0113
AGC ATT
BGIDK
TV ID SW
AFT
SYNC IN
LC
MUTE
STAND BY
COR
TEXT BLK
H SYNC
MONO
H.PULSE
IK
ABL
IC072 NVM
IK DET Q306
IK SWITCH Q311,312
PIP RESET
CN0114
CN0137
BLK
K
X RAY
H. DRIVE
H. PUSE
CN0106
A (A/V PROCESSOR,Y/C JUNGLE R.G.B OUTPUT,A/V SWITCH)


CN0403
R
G
B
IK
R.G.B AMP Q710-712
R.G.B OUT Q706,703,705,702,704,701
R.G.B OUT
V901 PICTURE TUBE
+12V
IK BUFFER Q713
R.G.B IK DET Q709,708,707
IK DET Q714
FV
TO FV
CN0421
H1
H2
C
C (R.G.B OUT)


CN1830
QP-
QP+
+12V
DRIVE SWITCH Q1709
CN1819
VM IN
AMP1-4 Q1701,1702,1704,1706
BUFF Q1707
DRIVE Q1703,1705
VM MUTE
VM MUTE SW Q1708
QP
QP
VM
NECK ASSY
VM (VM AMP)


IC3201 SURROUND MATRIX DECODER
LF IN
S OUT
L-R OUT
L+R OUT
V REF
L OUT
R OUT
C OUT
IC3202 ANALOG SWITCH
IC3206 DIGITAL DELAY
EPF2 OUT
LPF1
OSC OUT
OSC IN
X3201
DEL1
DEL2
DEL3
DEL1 SWITCH Q3205
DEL3 SWITCH Q3206
DIG 5V
SWITCH Q3207 - 3209
IC3203 8 BIT D/A CONVERTER
SW3
SW2
SW1
DAC2
DAC1
DAC0
DAC4
SW0
DAC3
SDA SCL
CN0227(1/2)
TO A BOARD
L IN
R IN
IC1251 NOISE REDUCTION
IC3204 AUDIO AMP
IC3205 STEREO DECODER SOUND CONTROL
S IN
CIN
SPC
SPS
BUFFER Q1251, 1252
SWITCH Q3203
CN0227(2/2)
CN0246
C OUT
S OUT
CN0248
TO M2 BOARD
CN0201(1/2)
SIF
CF
SIF AMP Q1101 - 1103
BPF
IC1101 DEMODULATOR
QPSK IN
CAR OSC
CARLPF
CLK IN
DATA
CKLPF
ANA 5V
VCO CAPACITOR
X1102
IC1102 NICAM DECODER
PCLK
RESET
DIG 5V
D1101
FMR
FML
X OUT
X IN
X1101
D1102 VCO CAPACITOR
OPL
OPR
L AUDIO AMP Q1105, 1106
R AUDIO AMP Q1107, 1108
BUFFER Q1104
CN0201(2/2)
A3
(SURROUND MATRIX DECODER STEREO DECODER/SOUND CONTROL MICAM DECODER)

5-2. CIRCUIT BOARDS LOCATION


VM
M2
D5
H1
H2
F1
D
F2
D4
K1
A3
A
J
IF
C

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

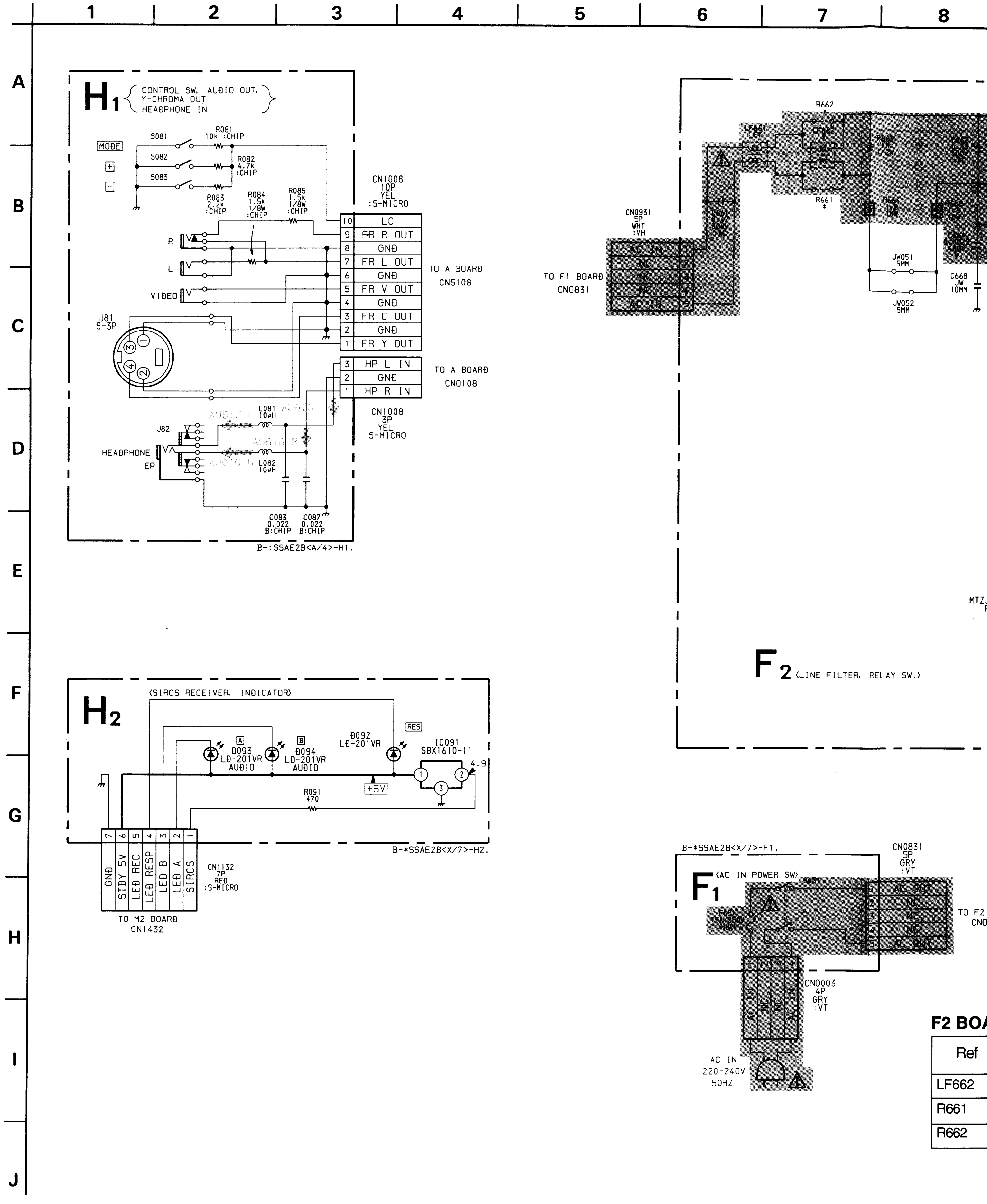
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted.
  pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

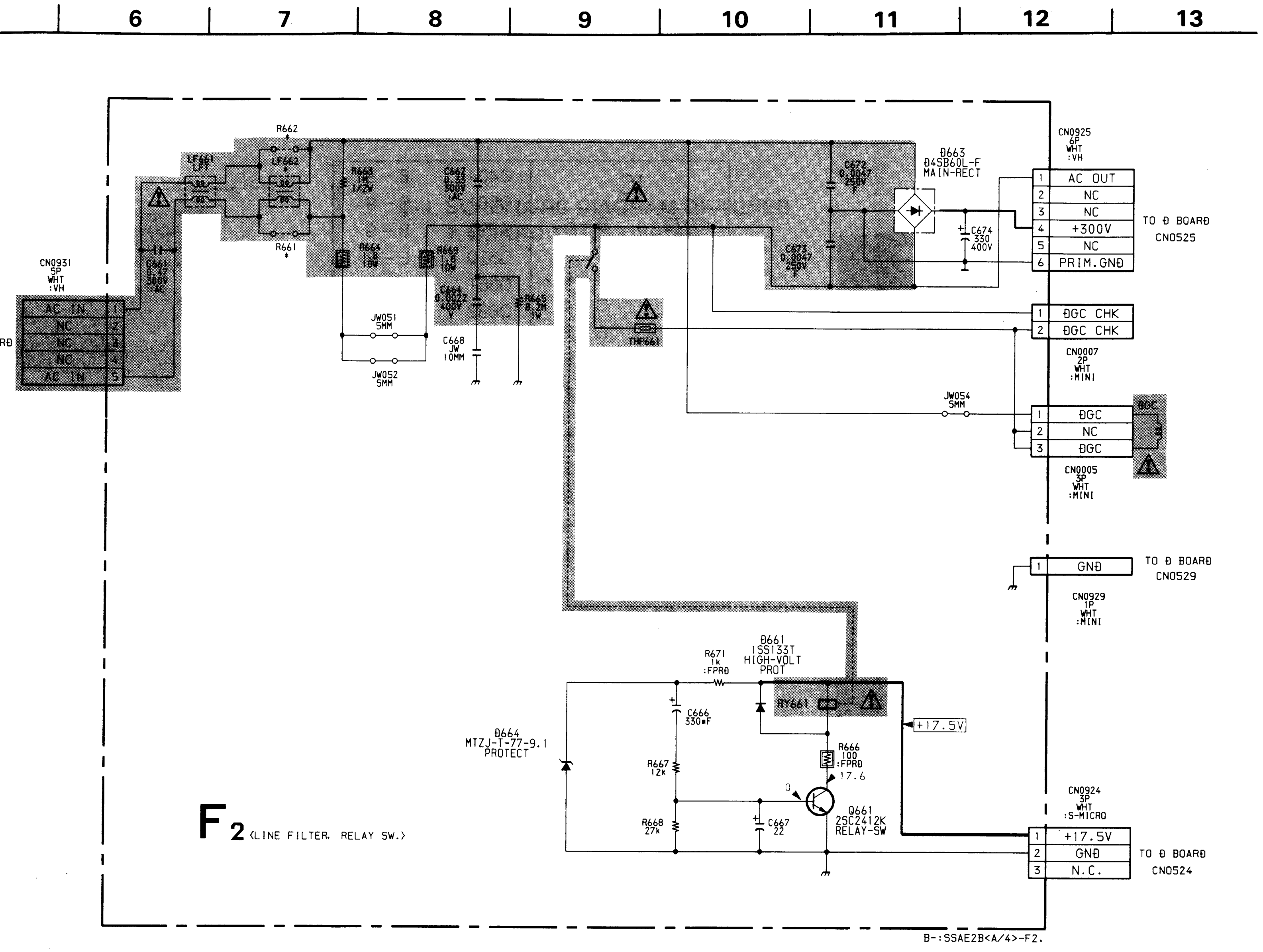
Pitch : 5mm Rating electrical power : ¼W

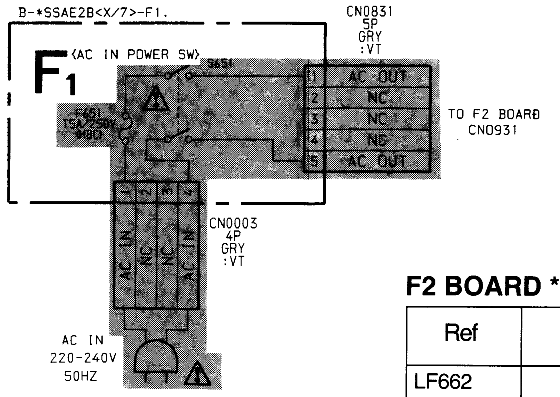
- Chip resistor is in 1/10W.
- All resistors are in ohms.
  kΩ = 1000 Ω, MΩ = 1000K Ω
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- ▭ : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ▬ : B + bus.
- ▬ ▬ : B − bus.
- ➡ : signal path.(RF)
- ⊥ : earth - ground
- ⏚ : earth - chassis


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
H1
CONTROL SW, AUDIO OUT, Y-CHROMA OUT HEADPHONE IN
MODE
+
−
S081
S082
S083
R081 10k :CHIP
R082 4.7k :CHIP
R083 2.2k :CHIP
R084 1.5k 1/8W :CHIP
R085 1.5k 1/8W :CHIP
CN1008 10P YEL :S-MICRO
10 LC
9 FR R OUT
8 GND
7 FR L OUT
6 GND
5 FR V OUT
4 GND
3 FR C OUT
2 GND
1 FR Y OUT
TO A BOARD CN5108
R
L
VIDEO
J81 S-3P
3 HP L IN
2 GND
1 HP R IN
TO A BOARD CN0108
CN1008 3P YEL S-MICRO
AUDIO L
L081 10μH
AUDIO R
L082 10μH
J82
HEADPHONE
EP
C083 0.022 B:CHIP
C087 0.022 B:CHIP
B-:SSAE2B<A/4>-H1.
H2
<SIRCS RECEIVER, INDICATOR>
A
D093 LD-201VR AUDIO
B
D094 LD-201VR AUDIO
D092 LD-201VR
RES
IC091 SBX1610-11
4.9
+5V
R091 470
7 GND
6 STBY 5V
5 LED REC
4 LED RESP
3 LED B
2 LED A
1 SIRCS
CN1132 7P RED :S-MICRO
TO M2 BOARD CN1432
B-*SSAE2B<X/7>-H2.
TO F1 BOARD CN0831
CN0931 5P WHT :VH
AC IN
NC
NC
NC
AC IN
LF661 LFT
R662 *
LF662 *
R661 *
R663 1M 1/2W
C661 0.47 300V :AC
C662 0.33 300V :AC
R664 1.8 10W
R669 1.8 10W
C664 0.0022 400V
JW051 5MM
JW052 5MM
C668 JW 10MM
MTZ
F2 <LINE FILTER, RELAY SW.>
B-*SSAE2B<X/7>-F1.
F1 <AC IN POWER SW>
S651
F651 T5A/250V (HBC)
CN0831 5P GRY :VT
1 AC OUT
2 NC
3 NC
4 NC
5 AC OUT
TO F2
CNO
CN0003 4P GRY :VT
AC IN
NC
NC
AC IN
AC IN 220-240V 50HZ

F2 BOA

Ref
LF662
R661
R662

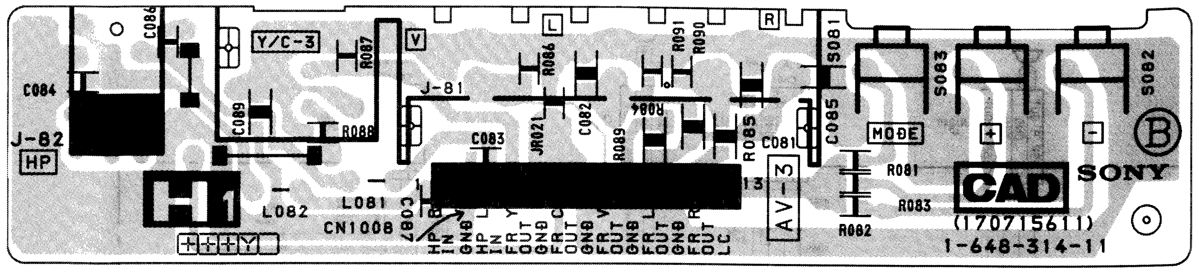

6
7
8
9
10
11
12
13
F2 ‹LINE FILTER, RELAY SW.›
CN0931 5P WHT :VH
AC IN
NC
NC
NC
AC IN
C661 0.47 300V :AC
LF661 LFT
R662
LF662
R661
R663 1M 1/2V
R664 1.8 10W
C662 0.33 300V :AC
R669 1.8 10W
C664 0.0022 400V
R665 8.2M 1W
JW051 5MM
JW052 5MM
C668 JW 10MM
C672 0.0047 250V
C673 0.0047 250V
D663 D4SB60L-F MAIN-RECT
C674 330 400V
THP661
CN0925 6P WHT :VH
AC OUT
NC
NC
+300V
NC
PRIM.GND
TO D BOARD CN0525
DGC CHK
DGC CHK
CN0007 2P WHT :MINI
JW054 5MM
DGC
NC
DGC
CN0005 3P WHT :MINI
GND
TO D BOARD CN0529
CN0929 1P WHT :MINI
R671 1k :FPRD
D661 1SS133T HIGH-VOLT PROT
RY661
+17.5V
C666 330μF
D664 MTZJ-T-77-9.1 PROTECT
R667 12k
R666 100 :FPRD
17.6
Q661 2SC2412K RELAY-SW
R668 27k
C667 22
CN0924 3P WHT :S-MICRO
+17.5V
GND
N.C.
TO D BOARD CN0524
B-:SSAE2B‹A/4›-F2.


B-*SSAE2B‹X/7›-F1.
F1 ‹AC IN POWER SW›
S651
F651 T5A/250V
CN0831 5P GRY :VT
AC OUT
NC
NC
NC
AC OUT
TO F2 BOARD CN0931
CN0003 4P GRY :VT
AC IN
NC
NC
AC IN
AC IN 220–240V 50HZ

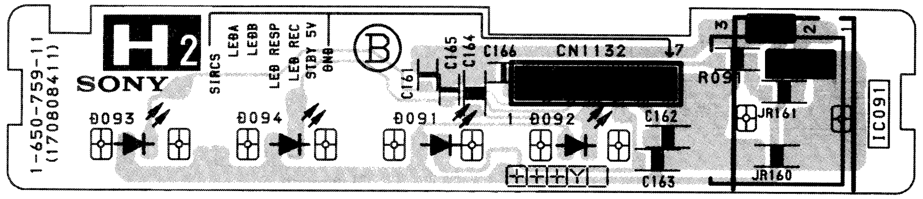
F2 BOARD * MARK

Ref	A2941A	A2941B	A2941D	A2943E	A294IK	A2942U
LF662	LFT	-	LFT	-	-	-
R661	-	JW 10MM	-	JW 10MM	JW 10MM	JW 10MM
R662	-	JW 10MM	-	JW 10MM	JW 10MM	JW 10MM

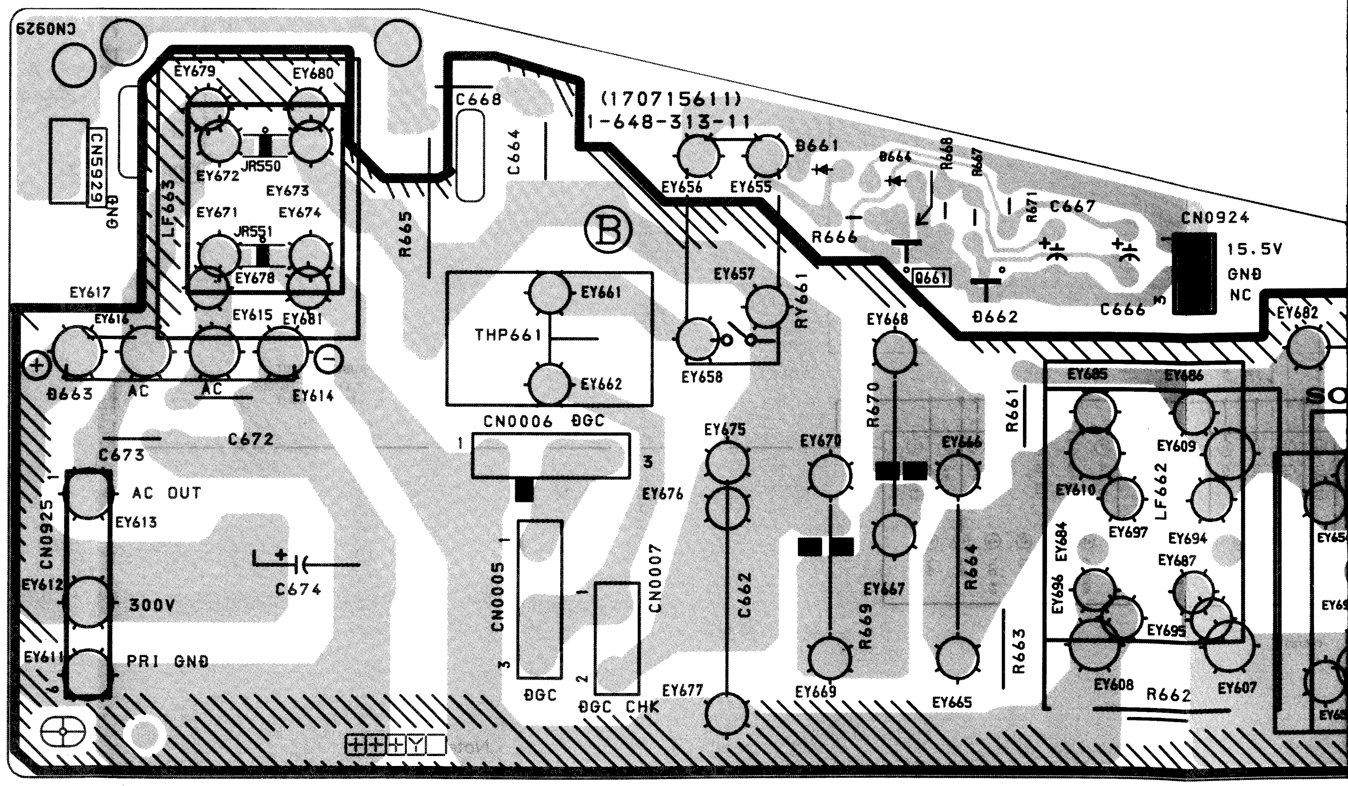
– H1 BOARD –

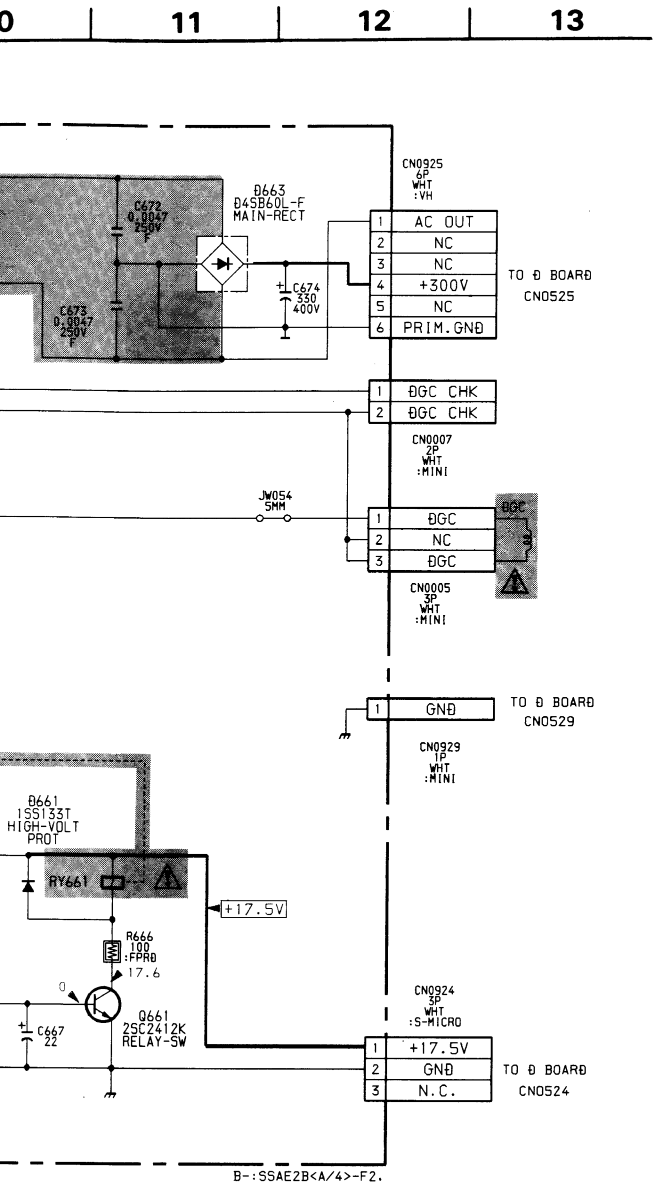

H1
J-82
HP
C084
C086
C089
Y/C-3
R087
R088
V
J-81
L
R086
C083
JR021
C082
R089
R084
R091
R090
R
R085
C081
C085
S081
S083
S082
MODE
R081
R083
R082
AV-3
CAD
SONY
(170715611)
1-648-314-11
L082
L081
CN1008
C087

– H2 BOARD –


H2
SONY
1-650-759-11
(170808411)
SIRCS
LED A
LED B
LED RESP
LED REC
STBY 5V
GND
D093
D094
D091
D092
C161
C165
C164
C166
CN1132
C162
C163
R09
JR161
JR160
IC091

– F2 BOARD –

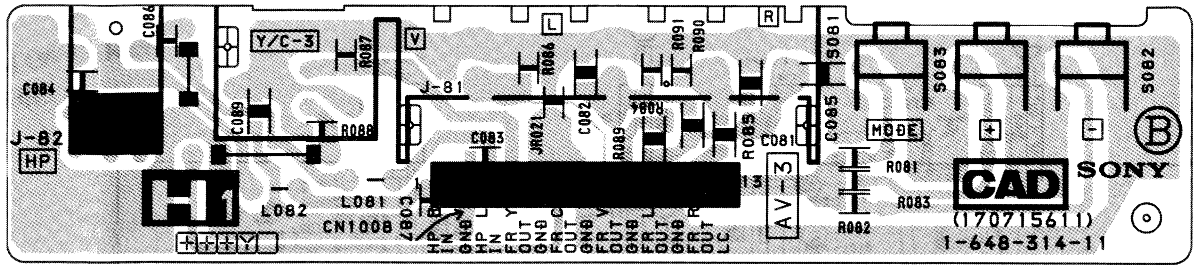

CN0929
CN5929
GND
EY679
EY680
JR550
EY672
EY673
EY671
EY674
JR551
EY678
LF663
EY617
EY616
EY615
EY681
D663
AC
AC
EY614
C668
C664
R665
(170715611)
1-648-313-11
D661
EY656
EY655
D664
R668
R667
R671
C667
R666
D661
CN0924
15.5V
GND
NC
EY657
RY661
EY661
THP661
EY662
EY658
D662
C666
EY682
C673
C672
CN0925
AC OUT
EY613
EY612
300V
EY611
PRI GND
C674
CN0006 DGC
EY676
CN0005
CN0007
DGC
DGC CHK
C662
EY675
EY670
R670
EY668
EY666
R661
EY667
R669
R664
EY669
EY665
R663
EY677
EY685
EY686
EY609
EY610
LF662
EY697
EY694
EY687
EY684
EY696
EY695
EY608
R662
EY607


0
11
12
13
CN0925
6P
WHT
:VH
1 AC OUT
2 NC
3 NC
4 +300V
5 NC
6 PRIM.GND
TO D BOARD
CN0525
D663
D4SB60L-F
MAIN-RECT
C672
0.0047
250V
C673
0.0047
250V
C674
330
400V
1 DGC CHK
2 DGC CHK
CN0007
2P
WHT
:MINI
JW054
5MM
1 DGC
2 NC
3 DGC
DGC
CN0005
3P
WHT
:MINI
1 GND
TO D BOARD
CN0529
CN0929
1P
WHT
:MINI
D661
1SS133T
HIGH-VOLT
PROT
RY661
+17.5V
R666
100
:FPRD
17.6
Q661
2SC2412K
RELAY-SW
C667
22
CN0924
3P
WHT
:S-MICRO
1 +17.5V
2 GND
3 N.C.
TO D BOARD
CN0524
B-:SSAE2B<A/4>-F2.

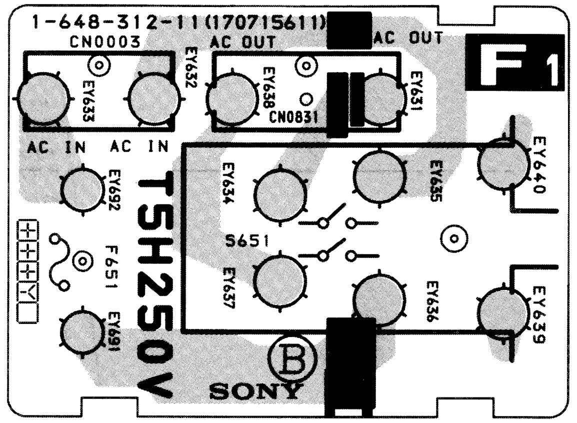
1B	A2941D	A2943E	A294IK	A2942U
	LFT	-	-	-
MM	-	JW 10MM	JW 10MM	JW 10MM
MM	-	JW 10MM	JW 10MM	JW 10MM

H1 [CONTROL SW, AUDIO OUT Y - CHROMA OUT, HEADPHONE] **H2** [SIRCS RECEIVER INDICATOR] **F2** [LINE FILTER, RELAY SW] **F1** [AC IN POWER SW]

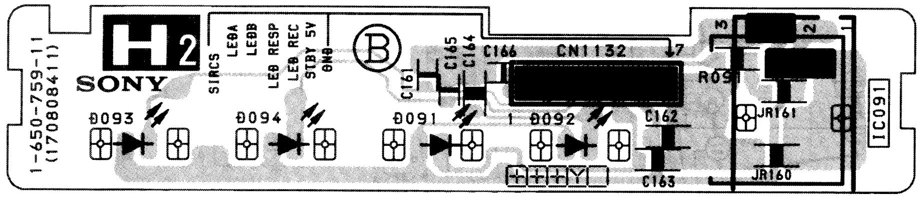
- H1 BOARD -


J-82
HP
Y/C-3
V
L
R
J-81
CN1008
L082
L081
C084
C086
C089
R087
R088
C083
JR021
R086
C082
R089
R084
R091
R090
R085
C081
C085
S081
S083
S082
MODE
+
-
R081
R083
R082
AV-3
13
HP IN
GND
HP L
IN
FR Y
OUT
GND
FR C
OUT
GND
FR V
OUT
GND
FR L
OUT
GND
FR R
OUT
LC
CAD
SONY
(170715611)
1-648-314-11
H1

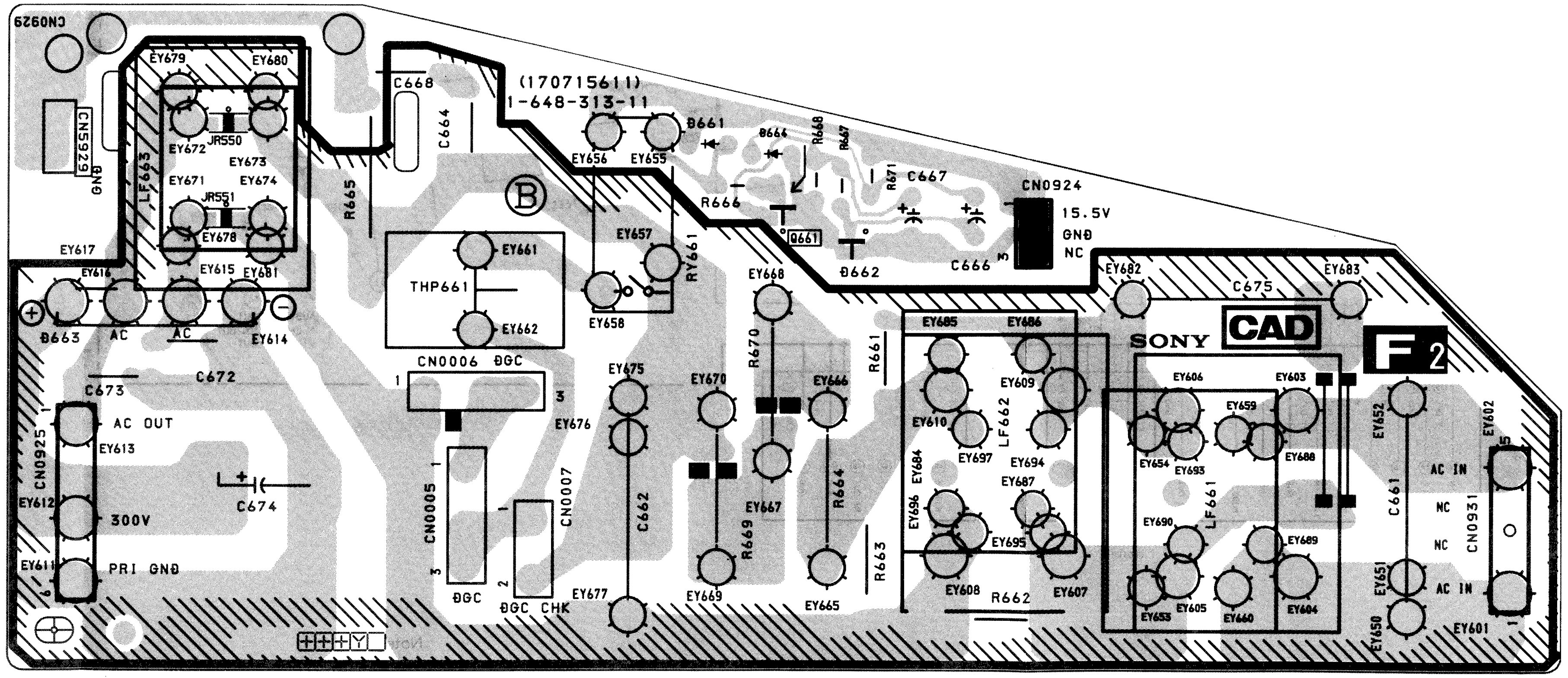
- F1 BOARD -


1-648-312-11(170715611)
CN0003
AC OUT
AC IN
AC IN
EY633
EY632
EY638
EY631
CN0831
EY634
EY635
EY640
EY692
F651
EY691
S651
EY637
EY636
EY639
T5H250V
SONY
F1

- H2 BOARD -

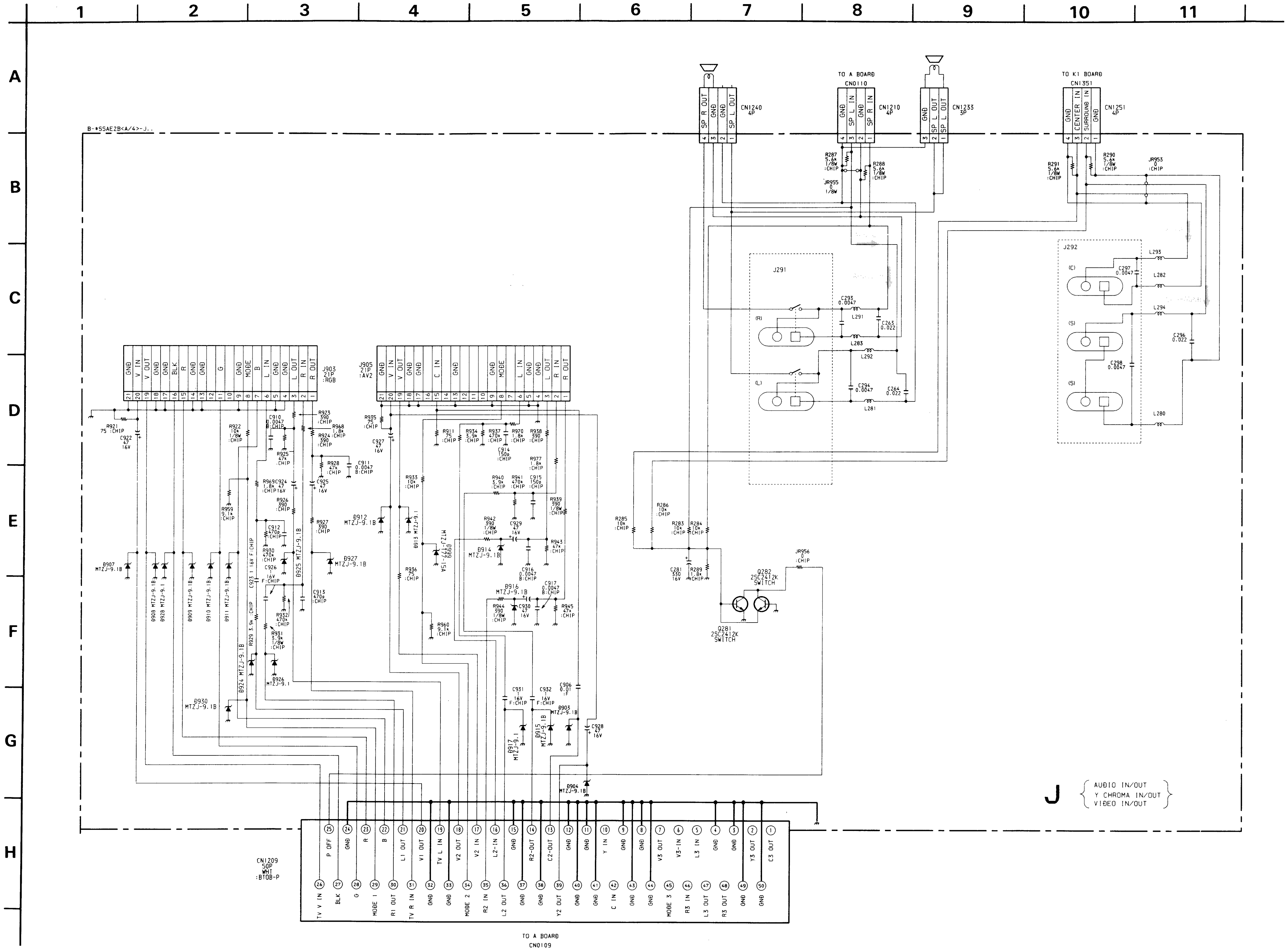

H2
SONY
1-650-759-11
(170808411)
SIRCS
LED A
LED B
LED RESP
LED REC
STBY 5V
GND
C161
C165
C164
C166
CN1132
R091
IC091
D093
D094
D091
1
D092
C162
C163
JR161
JR160
3
2

- F2 BOARD -


CN0929
CN5929
GND
(170715611)
1-648-313-11
C668
C664
EY679
EY680
EY672
JR550
EY673
EY671
EY674
JR551
EY678
LF663
R665
D661
D664
R668
R667
EY656
EY655
R666
R671
C667
CN0924
15.5V
GND
NC
Q661
D662
C666
EY657
RY661
EY661
THP661
EY662
EY658
EY617
EY616
EY615
EY681
EY614
D663
AC
AC
C673
C672
CN0006 DGC
1
3
EY676
EY675
EY668
R670
R661
EY670
EY666
EY682
EY683
C675
SONY
CAD
F2
AC OUT
EY613
CN0925
EY612
300V
EY611
PRI GND
C674
CN0005
3
1
CN0007
2
1
DGC
DGC CHK
EY677
C662
EY669
R669
EY667
R664
EY665
R663
EY685
EY686
EY609
EY610
LF662
EY697
EY694
EY687
EY684
EY696
EY695
EY608
R662
EY607
EY606
EY603
EY659
EY688
EY654
EY693
EY690
LF661
EY689
EY653
EY605
EY660
EY604
EY652
C661
EY602
AC IN
NC
NC
AC IN
CN0931
EY651
EY650
EY601

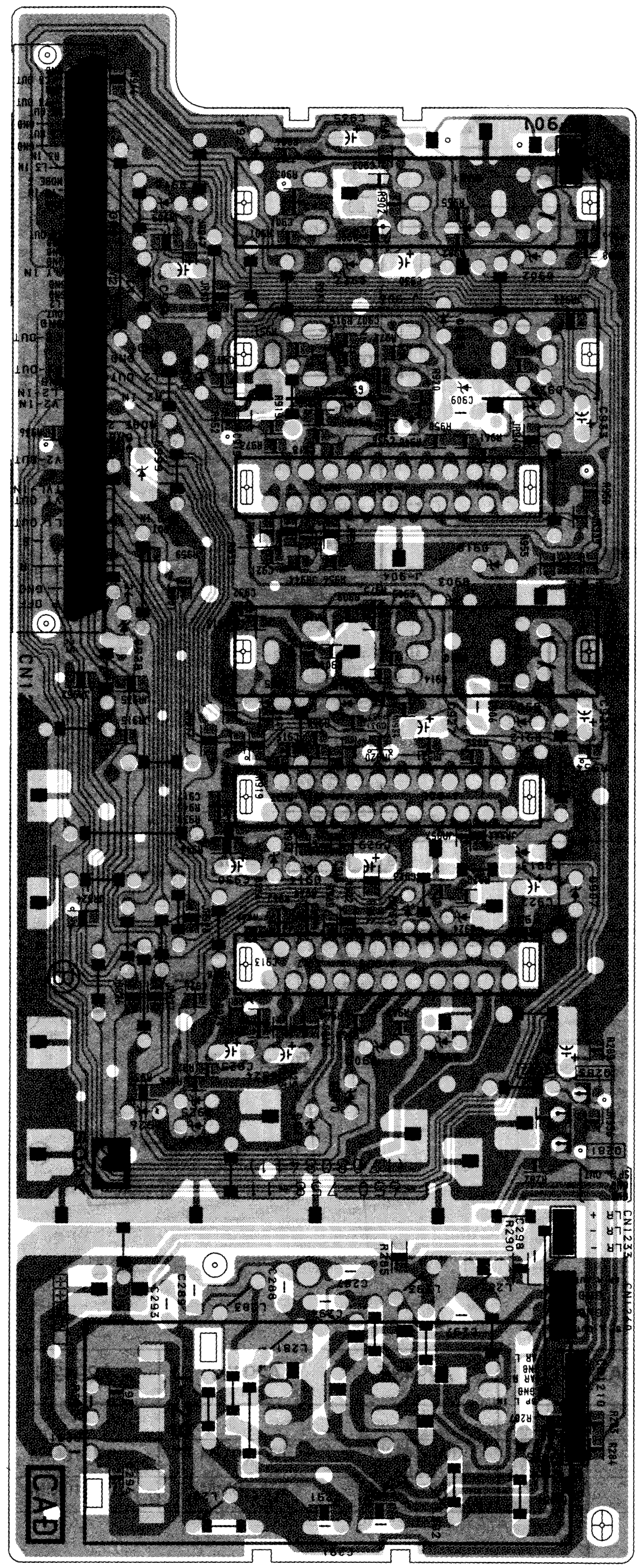
J AUDIO IN/OUT
Y – CHROMA IN/OUT
VIDEO IN/OUT

A TUNER AUDIO CONTROL,
AV SW, R.G.B. JUNGLE, Y



1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
TO A BOARD CN0110
TO K1 BOARD CN1351
CN1240 4P
CN1210 4P
CN1233 3P
CN1251 4P
J291
J292
J903 21P :RGB
J905 21P :AV2
Q281 2SC2412K SWITCH
Q282 2SC2412K SWITCH
CN1209 50P WHT :BTOB-P
TO A BOARD CN0109
J
AUDIO IN/OUT
Y CHROMA IN/OUT
VIDEO IN/OUT

– J BOARD –

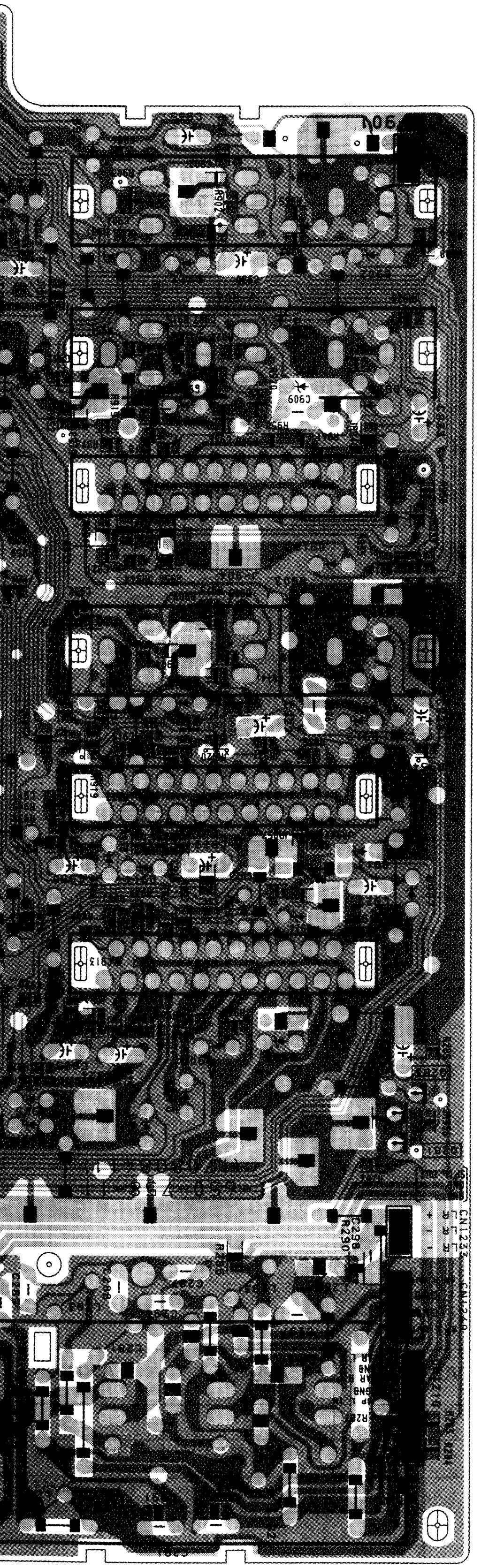


Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

D IN/OUT
HROMA IN/OUT
D IN/OUT

A TUNER AUDIO CONTROL, AUDIO AMP
AV SW, R.G.B. JUNGLE, Y/C PROCESSOR

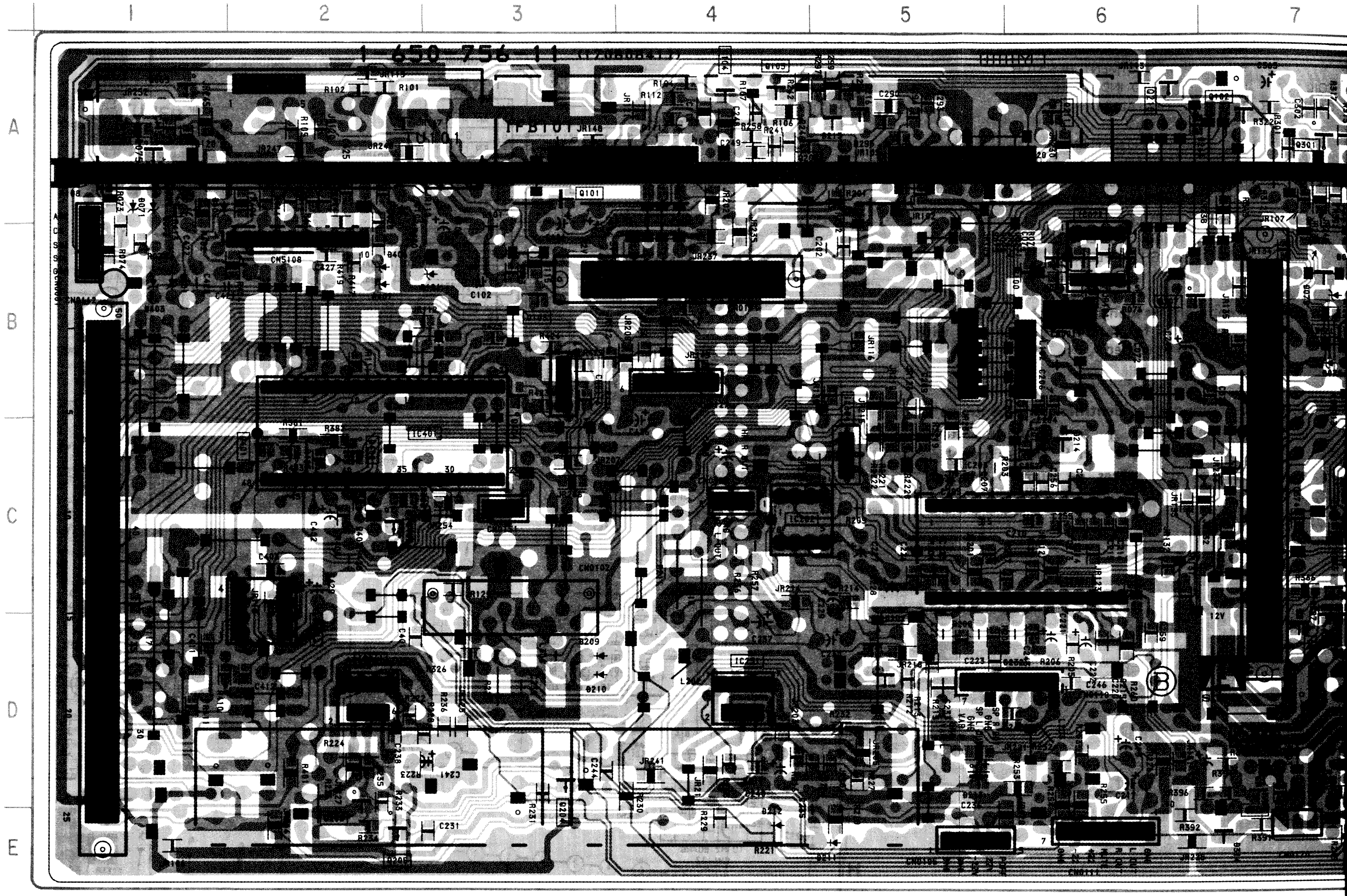


IC	
IC072	B – 6
IC201	C – 6
IC202	C – 4
IC251	D – 4
IC261	D – 2
IC301	A – 8
IC302	A – 10
IC304	C – 10
IC401	C – 2
IC402	D – 2
IC681	D – 9
IC684	C – 4
IC685	E – 8

TRANSISTOR	
Q071	D – 8
Q101	A – 3
Q102	A – 7
Q103	A – 3
Q201	D – 5
Q202	D – 5
Q203	A – 4
Q204	D – 3
Q205	E – 2
Q206	D – 2
Q207	B – 6
Q209	E – 7
Q210	A – 6
Q301	A – 7
Q302	B – 7
Q303	D – 10
Q304	D – 10
Q305	A – 8
Q306	D – 10
Q308	C – 9
Q309	C – 9
Q311	C – 8
Q312	C – 8
Q313	B – 8
Q314	C – 7
Q315	D – 7
Q401	C – 2
Q402	C – 2
Q403	C – 2
Q404	B – 3
Q581	B – 9
Q582	B – 9
Q610	E – 9
Q681	E – 7
Q682	D – 9

DIODE	
D068	B – 7
D069	A – 1
D071	A – 1
D073	A – 1
D075	A – 1
D077	B – 7
D078	B – 7
D079	B – 7
D101	B – 2
D206	D – 7
D207	E – 7
D208	D – 7
D209	D – 3
D210	D – 3
D211	E – 5
D212	E – 4
D213	D – 5
D214	C – 6
D301	B – 9
D302	A – 9
D304	B – 10
D305	C – 9
D306	D – 10
D307	D – 10
D308	D – 10
D311	C – 9
D312	C – 8
D313	C – 7
D381	C – 8
D401	B – 1
D403	B – 1
D405	A – 1
D406	B – 2
D407	B – 2
D571	B – 9
D681	E – 8
D683	D – 9

– A BOARD –

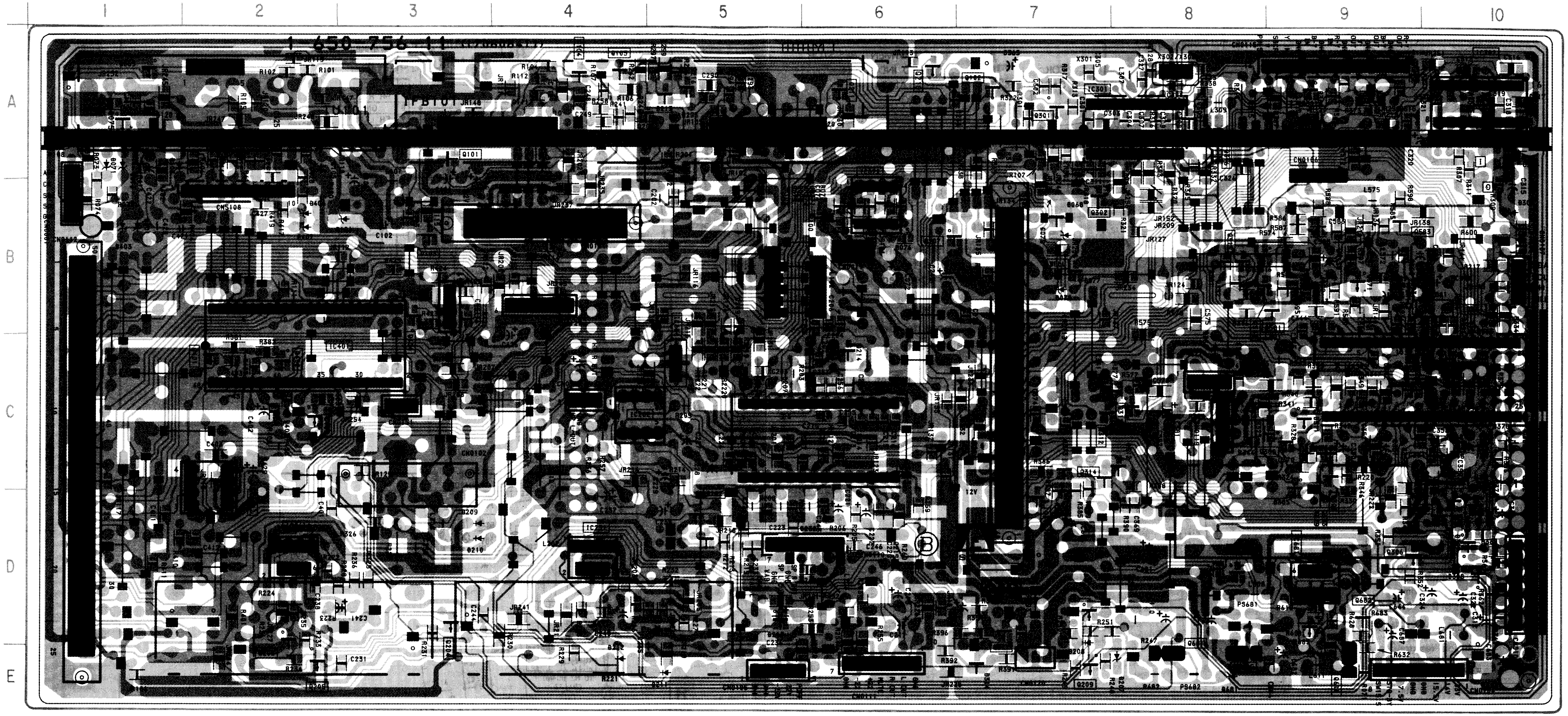


404	B – 3
581	B – 9
582	B – 9
610	E – 9
681	E – 7
682	D – 9

DIODE

068	B – 7
069	A – 1
71	A – 1
73	A – 1
75	A – 1
77	B – 7
78	B – 7
79	B – 7
01	B – 2
06	D – 7
07	E – 7
08	D – 7
09	D – 3
10	D – 3
11	E – 5
12	E – 4
13	D – 5
14	C – 6
01	B – 9
02	A – 9
04	B – 10
05	C – 9
06	D – 10
07	D – 10
08	D – 10
11	C – 9
12	C – 8
13	C – 7
31	C – 8
01	B – 1
03	B – 1
05	A – 1
06	B – 2
07	B – 2
71	B – 9
31	E – 8
33	D – 9

– A BOARD –


1
2
3
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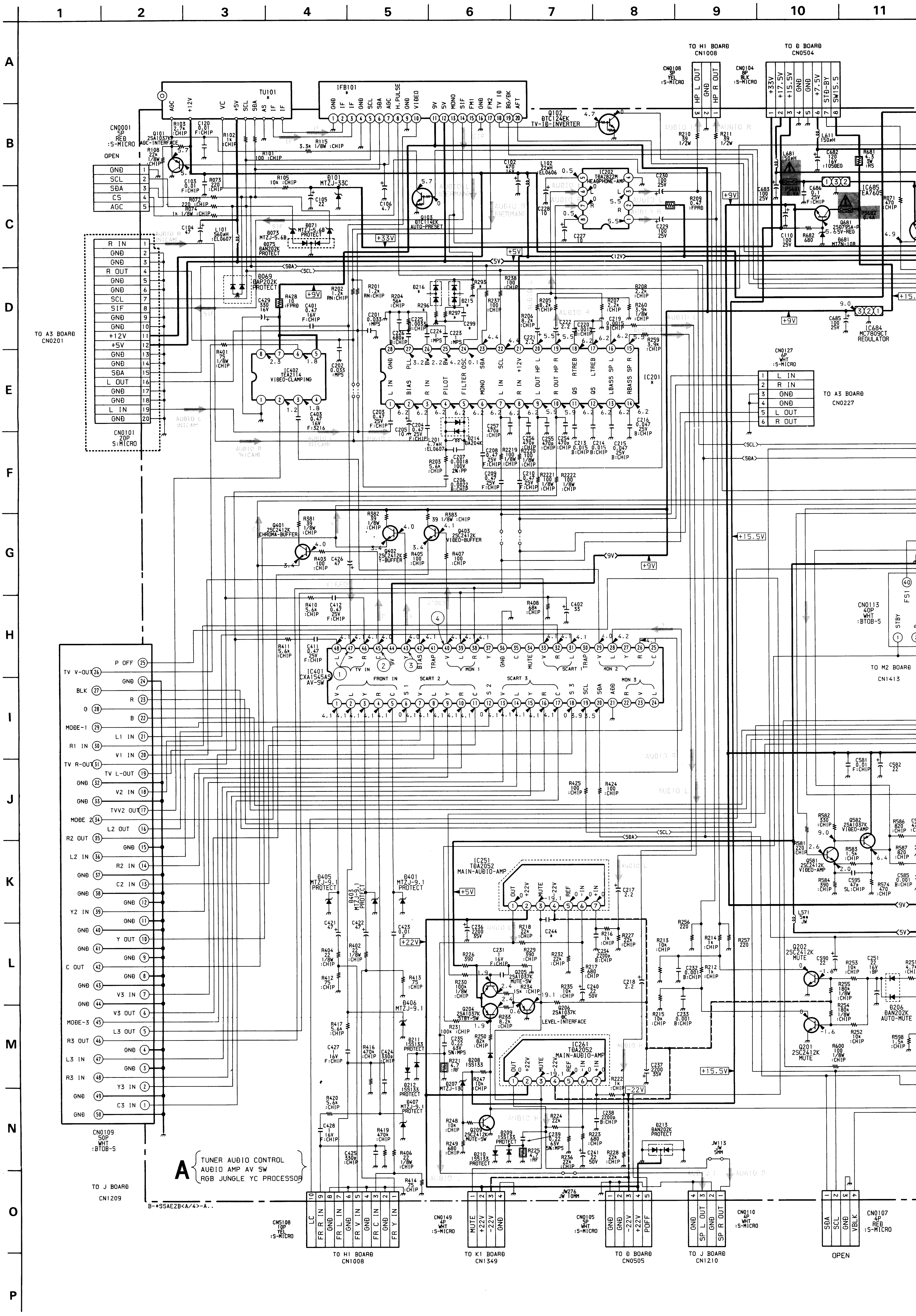
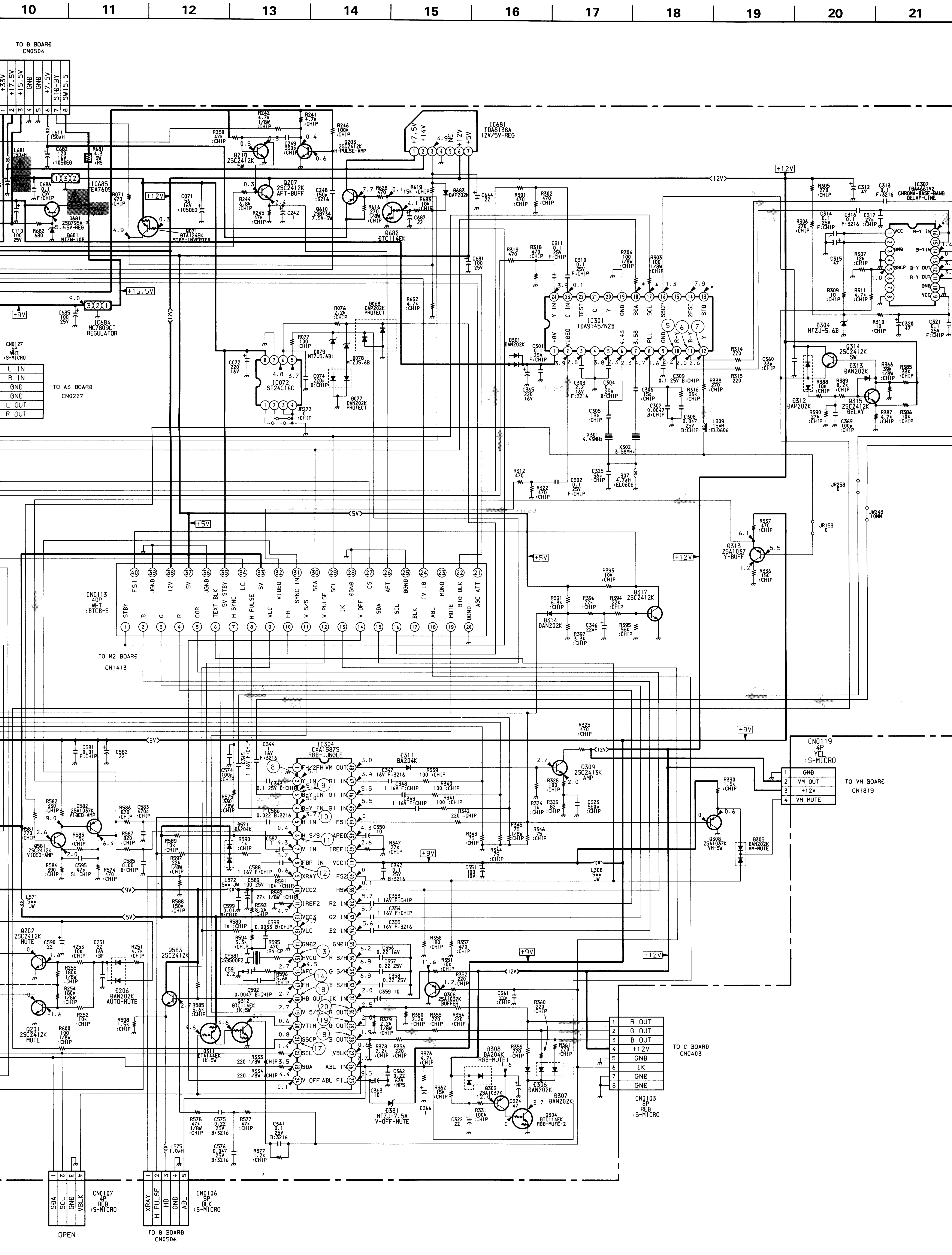
5
6
7
8
9
10
A
B
C
D
E
1-650-756-11
IFB101
Q101
IC401
CN5106
CN0102
C102
R102
R101
X301
X302
Q301
Q302
IC301
R251
R247
PS681
PS682
R632
R221
R224
C231
C241
R230
R229
C223
C246
L575
C575
12V

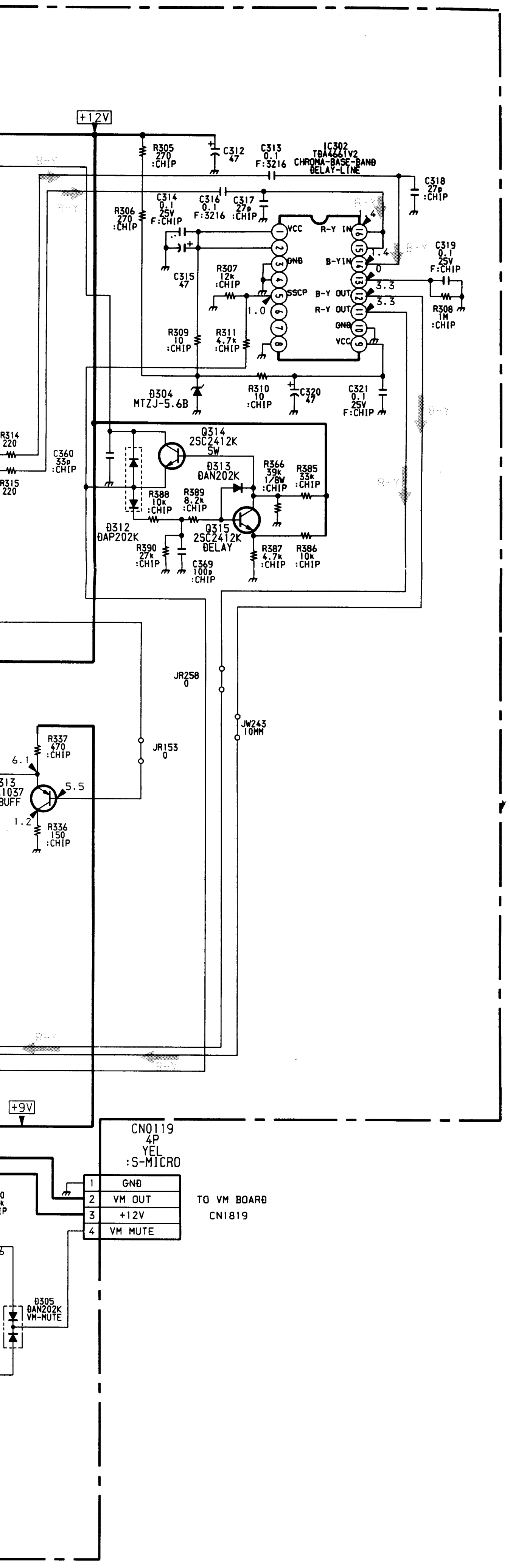
Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

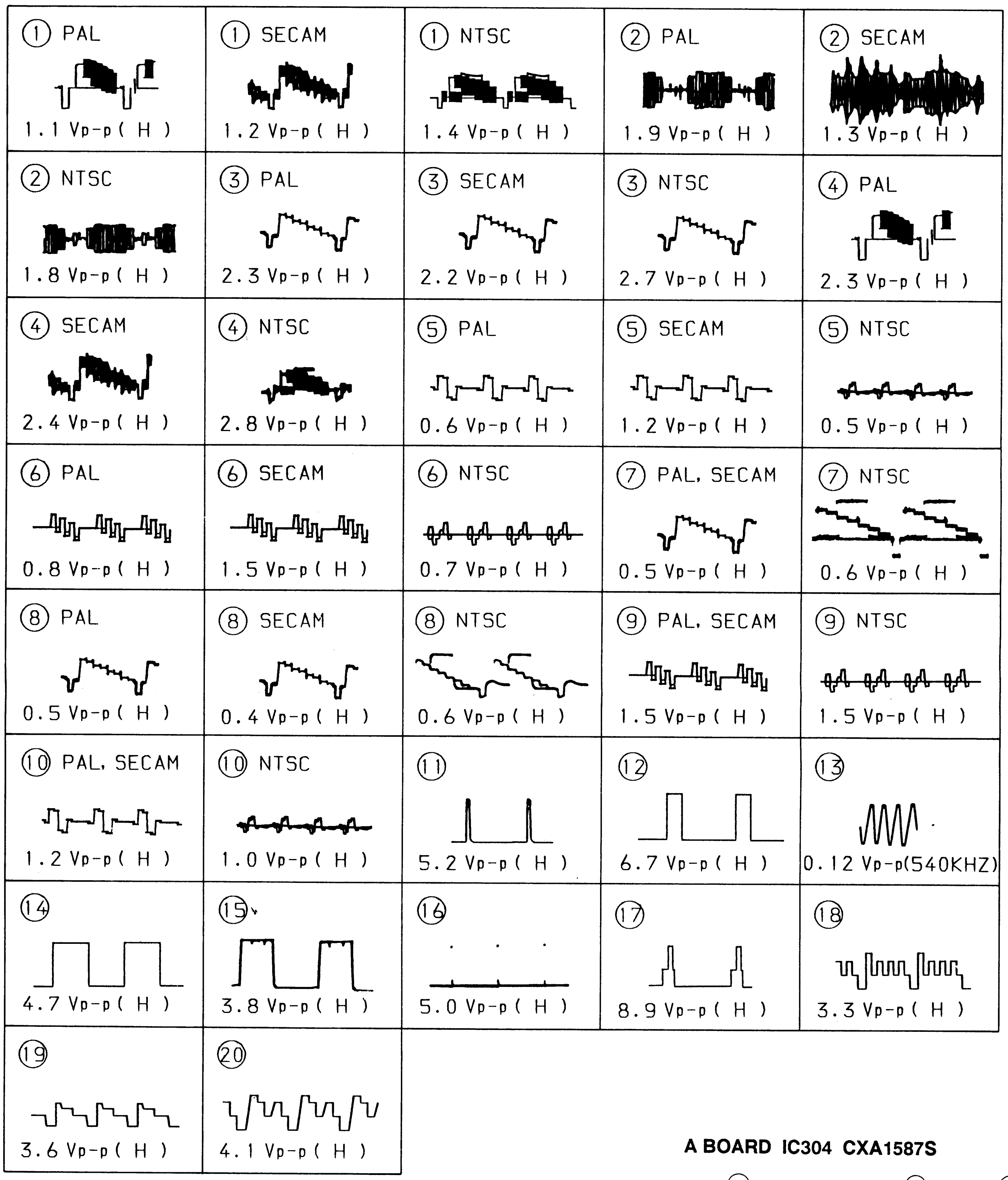

TU101
IFB101
IC202 TBA2822M HEADPHONE-AMP
IC201
IC402 TEA2114 VIDEO-CLAMPING
IC401 CXA1545AS AV-SW
IC251 TDA2052 MAIN-AUDIO-AMP
IC261 TDA2052 MAIN-AUDIO-AMP
IC684 MC7809CT REGULATOR
IC685 EA7605
Q101 2SA1037K AGC-INTERFACE
Q102 DTC124EK TV-ID-INVERTER
Q103 DTC114EK AUTO-PRESET
Q401 2SC2412K CHROMA-BUFFER
Q402 2SC2412K Y-BUFFER
Q403 2SC2412K VIDEO-BUFFER
Q581 2SC2412K VIDEO-AMP
Q582 2SA1037K VIDEO-AMP
Q201 2SC2412K MUTE
Q202 2SC2412K MUTE
Q205 2SA1037K MUTE-SW
Q206 2SA1037K LEVEL-INTERFACE
Q209 2SC2412K MUTE-SW
Q681 2SD795A-P 5.6V-REG
D206 DAN202K AUTO-MUTE
D213 DAN202K PROTECT
CN0001 5P RED :S-MICRO
CN0101 20P S:MICRO
TO A3 BOARD CN0201
CN0108 3P YEL :S-MICRO
TO H1 BOARD CN1008
CN0104 8P BLK :S-MICRO
TO D BOARD CN0504
CN0127 6P WHT :S-MICRO
TO A3 BOARD CN0227
CN0113 40P WHT :BTOB-S
TO M2 BOARD CN1413
CN0109 50P WHT :BTOB-S
TO J BOARD CN1209
CN5108 10P YEL :S-MICRO
TO H1 BOARD CN1008
CN0149 4P WHT :S-MICRO
TO K1 BOARD CN1349
CN0105 5P WHT :S-MICRO
TO D BOARD CN0505
CN0110 4P WHT :S-MICRO
TO J BOARD CN1210
CN0107 4P RED :S-MICRO
OPEN
B-*SSAE2B<A/4>-A..
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O P

A TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR
]


10
11
12
13
14
15
16
17
18
19
20
21
TO D BOARD
CN0504
+33V
+17.5V
+15.5V
GND
GND
+7.5V
STD-BY
SW15.5
IC685
EA7605
L681
150µH
L611
150µH
C682
120
16V
:105DEG
R681
4.3
3W
:RS
C686
0.1
25V
F:CHIP
C110
100
25V
R682
680
Q681
2SD795A-P
Q681
MTZJ-10B
R071
470
:CHIP
C071
56
16V
:105DEG
Q071
DTA124EK
STBY-INVERTER
+12V
+15.5V
+9V
IC684
MC7809CT
REGULATOR
C685
100
25V
R258
47k
:CHIP
R242
4.7k
1/8W
:CHIP
R241
4.7k
:CHIP
Q210
2SC2412K
SW
C249
330p
:CHIP
Q203
2SC2412K
H-PULSE-AMP
R246
100k
:CHIP
Q207
2SC2412K
AFT-BUFF
R244
6.8k
:CHIP
R245
47k
:CHIP
C242
1
C248
150p
:3216
Q610
2SB734
7.5V-SW
R628
470
R616
270
1/8W
:CHIP
R619
15k
:CHIP
R683
10k
:CHIP
C687
22
Q682
DTC114EK
D683
DAP202K
C644
22
IC681
TDA8138A
12V/5V-REG
+7.5V
+14V
NC
+12V
+5V
C681
100
25V
R632
4.7k
:CHIP
CN0127
6P
WHT
:S-MICRO
L IN
R IN
GND
GND
L OUT
R OUT
TO A3 BOARD
CN0227
R076
2.2k
:CHIP
D068
DAP202K
PROTECT
R077
100
:CHIP
D079
MTZJ5.6B
D078
MTZJ5.6B
C072
220
16V
IC072
ST24C16C
C074
220p
B:CHIP
D077
DAN202K
PROTECT
JR272
0
:CHIP
R301
470
:CHIP
R302
470
:CHIP
R319
470
R318
470
:CHIP
C311
0.1
25V
F:CHIP
C310
0.1
25V
F:CHIP
R304
100
1/8W
:CHIP
R303
100
1/8W
:CHIP
IC301
TDA9145/N2B
Y IN
C IN
TEST
C
Y
GND
SDA
SCL
SSCP
2FSC
STD
+8V
VIDEO
PLL
GND
R-Y
B-Y
Y
D301
DAN202K
C301
0.1
25V
F:CHIP
C365
220
16V
C303
2.2
16V
F:3216
C304
0.1
25V
B:CHIP
C306
15p
:CHIP
C307
0.0047
B:CHIP
C309
0.1 25V B:CHIP
R316
33k
:CHIP
R338
270
:CHIP
C308
0.047
25V
B:CHIP
L309
15µH
:EL0606
C305
13p
:CHIP
X301
4.43MHz
X302
3.58MHz
C325
56p
:CHIP
L307
4.7µH
:EL0606
R312
470
R322
470
:CHIP
C302
0.1
25V
F:CHIP
R314
220
R315
220
C360
33p
:CHIP
+12V
R305
270
:CHIP
C312
47
C313
0.1
F:3216
IC302
TDA4661V2
CHROMA-BASE-BAND
DELAY-LINE
R306
270
:CHIP
C314
0.1
25V
F:CHIP
C316
0.1
F:3216
C317
27p
:CHIP
C315
47
R307
12k
:CHIP
R309
10
:CHIP
R311
4.7k
:CHIP
R310
10
:CHIP
C320
47
C321
0.1
25V
F:CHIP
VCC
GND
SSCP
R-Y IN
B-Y IN
B-Y OUT
R-Y OUT
D304
MTZJ-5.6B
Q314
2SC2412K
SW
D313
DAN202K
R366
39k
1/8W
:CHIP
R385
33k
:CHIP
D312
DAP202K
R388
10k
:CHIP
R389
8.2k
:CHIP
Q315
2SC2412K
DELAY
R390
27k
:CHIP
C369
100p
:CHIP
R387
4.7k
:CHIP
R386
10k
:CHIP
JR258
0
JW243
10MM
JR153
0
R337
470
:CHIP
Q313
2SA1037
Y-BUFF
R336
150
:CHIP
(5V)
+5V
+5V
+12V
CN0113
40P
WHT
:BTOB-S
FS1
JGND
12V
5V
JGND
TEXT BLK
5V STBY
LC
5V
VIDEO
SYNC IN
SDA
SCL
DGND
CS
AFT
DGND
TV ID
MONO
BIG BLK
AGC ATT
STBY
B
G
R
COR
H SYNC
H PULSE
VLC
FH
V S/S
V PULSE
IK
V OFF
SDA
SCL
BLK
ABL
MUTE
DGND
TO M2 BOARD
CN1413
R393
10k
:CHIP
R391
6.8k
:CHIP
R396
22k
:CHIP
R394
22k
:CHIP
Q317
2SC2412K
D314
DAN202K
C346
22
R395
56k
:CHIP
R392
3.3k
:CHIP
(9V)
C581
0.01
F:CHIP
C582
22
IC304
CXA1587S
RGB-JUNGLE
FH/2FH VM OUT
R1 IN
G1 IN
B1 IN
FS1
APED
IREF1
VCC1
FS2
HSW
VCC2
IREF2
R2 IN
G2 IN
VCC3
B2 IN
VLC
GND2
GND1
VCO
R S/H
AFC
G S/H
FH
B S/H
HD OUT
IK
S/S
R OUT
VTIM
G OUT
SSCP
B OUT
SCL
VBLK
SDA
ABL IN
V OFF
ABL FIL
Y IN
R-Y IN
B-Y IN
FBP IN
XRAY
D311
DA204K
C347
1 16V F:3216
R339
100 :CHIP
C348
1 16V F:CHIP
R340
100 :CHIP
C349
1 16V F:CHIP
R341
100 :CHIP
R342
220 :CHIP
C350
10
R347
27k
:CHIP
C342
0.1
25V
B:3216
C351
100
10V
L308
5mm
JW
C353
1 16V F:CHIP
C354
1 16V F:CHIP
C355
1 16V F:3216
C356
0.22 16V
C357
0.22 25V
C358
0.22 25V
C359 10
C362
0.22
63V
:MPS
C363
10
D381
MTZJ-7.5A
V-OFF-MUTE
C366
1
C344
1
16V
F:3216
C345
1 16V F:CHIP
C574
100p
:CHIP
R575
330
1/8W
:CHIP
C343
0.1 25V B:CHIP
C586
0.022 B:3216
D571
DA204K
R590
1k
:CHIP
C587
1
C588
1 16V F:CHIP
C589
100 25V
R591
10k :CHIP
L572
5mm JW
C599
0.01
F:CHIP
R592
27k 1/8W :CHIP
R593
8.2k
:CHIP
R580
1k :CHIP
C593
0.0033 B:CHIP
R594
3.3k
:CHIP
R595
470
:RN-CP
CF581
CSB500F2
C591
2.2
R596
5.6k
:CHIP
C592
0.0047 B:CHIP
Q312
DTC114EK
IK-SW
R582
330
:CHIP
Q582
2SA1037K
VIDEO-AMP
R586
820
:CHIP
C583
470p
:CHIP
R581
220
:CHIP
Q581
2SC2412K
VIDEO-AMP
R583
1.5k
:CHIP
R587
820
:CHIP
C585
0.001
B:CHIP
R584
390
:CHIP
C595
47p
SL:CHIP
R574
470
:CHIP
R589
10k
:CHIP
R597
22k
1/8W
:CHIP
R588
150k
:CHIP
L571
5mm
JW
(5V)
Q202
2SC2412K
MUTE
C590
22
R253
10k
:CHIP
C251
22
16V
:BP
R251
4.7k
:CHIP
R255
180k
1/8W
:CHIP
R254
180k
1/8W
:CHIP
D206
DAN202K
AUTO-MUTE
Q201
2SC2412K
MUTE
R252
10k
:CHIP
R598
1.5k
:CHIP
R600
100
1/8W
:CHIP
Q583
2SC2412K
R585
5.6k
:CHIP
Q311
DTA144EK
IK-SW
R333
220 1/8W :CHIP
R334
220 1/8W :CHIP
R578
47k
:CHIP
C575
0.22
25V
B:3216
R577
47k
:CHIP
C341
0.1
25V
B:3216
C576
0.047
25V
B:3216
R377
1.2k
:CHIP
L575
1.0µH
CN0107
4P
RED
:S-MICRO
SDA
SCL
GND
VBLK
OPEN
CN0106
5P
BLK
:S-MICRO
XRAY
H PULSE
HD
GND
ABL
TO D BOARD
CN0506
R325
470
:CHIP
+9V
Q309
2SC2413K
AMP
R328
100
:CHIP
R324
1k
:CHIP
R329
82
:CHIP
C323
560p
:CHIP
R343
75
:CHIP
R345
75
1/8W
:CHIP
R346
75
:CHIP
R344
75
:CHIP
+9V
CN0119
4P
YEL
:S-MICRO
GND
VM OUT
+12V
VM MUTE
TO VM BOARD
CN1819
R330
1.5k
:CHIP
Q308
2SA1037K
VM-SW
D305
DAN202K
VM-MUTE
+9V
+12V
R358
180
:CHIP
R357
470
:CHIP
R351
10k
:CHIP
R352
220
:CHIP
Q305
2SA1037K
BUFFER
C361
22p
:CHIP
R360
220
:CHIP
R379
2.2k
1/8W
:CHIP
R380
2.2k
:CHIP
R355
220
:CHIP
R354
220
:CHIP
R378
2.2k
:CHIP
R356
220
:CHIP
R376
4.7k
:CHIP
D308
DA204K
RGB-MUTE1
R359
220
:CHIP
R361
220
:CHIP
R362
15k
:CHIP
Q303
2SA1037K
C324
47
D306
DAN202K
D307
DAN202K
R331
100k
:CHIP
C322
22
Q304
DTC114EK
RGB-MUTE-2
R OUT
G OUT
B OUT
+12V
GND
IK
GND
GND
CN0103
8P
RED
:S-MICRO
TO C BOARD
CN0403


+12V
R305 270 :CHIP
C312 47
C313 0.1 F:3216
IC302 TBA4661V2 CHROMA-BASE-BAND DELAY-LINE
C318 27p :CHIP
C314 0.1 25V F:CHIP
C316 0.1 F:3216
C317 27p :CHIP
R306 270 :CHIP
VCC
R-Y IN
GND
B-Y IN
SSCP
B-Y OUT
R-Y OUT
VCC
C319 0.1 25V F:CHIP
R308 1M :CHIP
C315 47
R307 12k :CHIP
R309 10 :CHIP
R311 4.7k :CHIP
D304 MTZJ-5.6B
R310 10 :CHIP
C320 47
C321 0.1 25V F:CHIP
B-Y
R-Y
1.4
0
3.3
1.0
R314 220
R315 220
C360 33p :CHIP
Q314 2SC2412K SW
D313 DAN202K
R366 39k 1/8W :CHIP
R385 33k :CHIP
R388 10k :CHIP
R389 8.2k :CHIP
D312 DAP202K
Q315 2SC2412K DELAY
R390 27k :CHIP
C369 100p :CHIP
R387 4.7k :CHIP
R386 10k :CHIP
JR258 0
JW243 10MM
JR153 0
R337 470 :CHIP
6.1
5.5
1.2
BUFF
R336 150 :CHIP
+9V
CN0119 4P YEL :S-MICRO
1 GND
2 VM OUT
3 +12V
4 VM MUTE
TO VM BOARD CN1819
D305 DAN202K VM-MUTE

WAVEFORMS A BOARD



Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

A BOARD

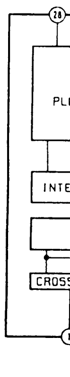
	PAL	SECAM	NTSC3.58	NTSC4.43
IC301 ⑬	0.0	0.0	4.8	4.9
⑮	0.0	5.0	5.0	0.0
⑰	4.7	4.2	3.6	4.1
⑱	4.8	4.4	4.6	4.8
Q301 (B)	0.0	0.0	0.0	1.6
(C)	5.5	5.5	5.5	0.1
Q305 (B)	0.0	5.5	5.5	0.0
(C)	0.0	0.0	0.0	1.6

A BOARD * MARK

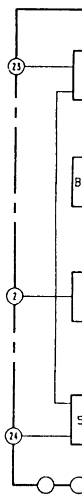
Ref	A2941A	A2941B	A2941D	A2943E	A2941K	A2942U
C244	1MF	1MF	1MF	1MF	1MF	0.01MF
C299	2.2MF	1MF	2.2MF	2.2MF	2.2MF	2.2MF
C333	-	470PF	-	-	-	-
D215	-	DAN204K	-	-	-	-
D216	-	DAN204K	-	-	-	-
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622
IFB101	IFH-389	IFH-389F	IFH-389	IFH-389	IFH-389	IFH-395
R293	-	12K	-	-	-	-
R296	-	330	-	-	-	-
R297	-	120	-	-	-	-
R326	-	0	-	-	-	-
TU101	UV916H	UV916H	UV916H	UV916H	UV916H	U944C

A BO

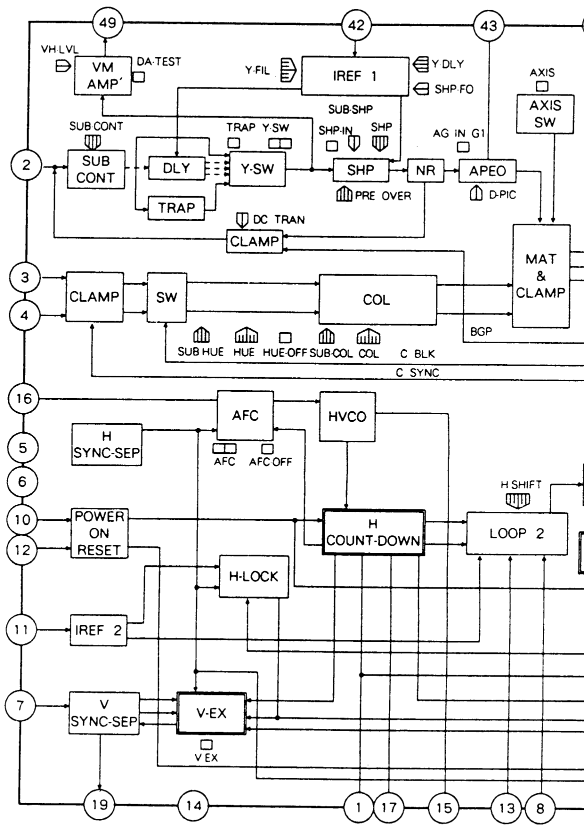
A BO



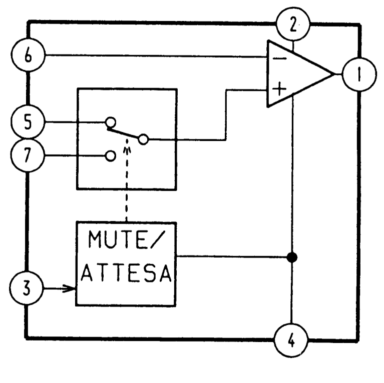
A BO



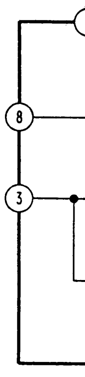
A BOARD IC304 CXA1587S


49
42
43
VH LVL
VM AMP'
DA TEST
Y FIL
IREF 1
Y DLY
SHP FO
AXIS
AXIS SW
SUB CONT
SUB SHP
TRAP Y SW
SHP IN
SHP
AG IN G1
2
SUB CONT
DLY
Y-SW
SHP
NR
APEO
TRAP
PRE OVER
D-PIC
DC TRAN
CLAMP
MAT & CLAMP
3
4
CLAMP
SW
COL
SUB HUE
HUE
HUE OFF
SUB COL
COL
C BLK
BGP
C SYNC
16
AFC
HVCO
5
H SYNC-SEP
AFC
AFC OFF
6
H SHIFT
10
POWER ON RESET
H COUNT-DOWN
LOOP 2
12
H-LOCK
11
IREF 2
7
V SYNC-SEP
V-EX
V EX
19
14
1
17
15
13
8

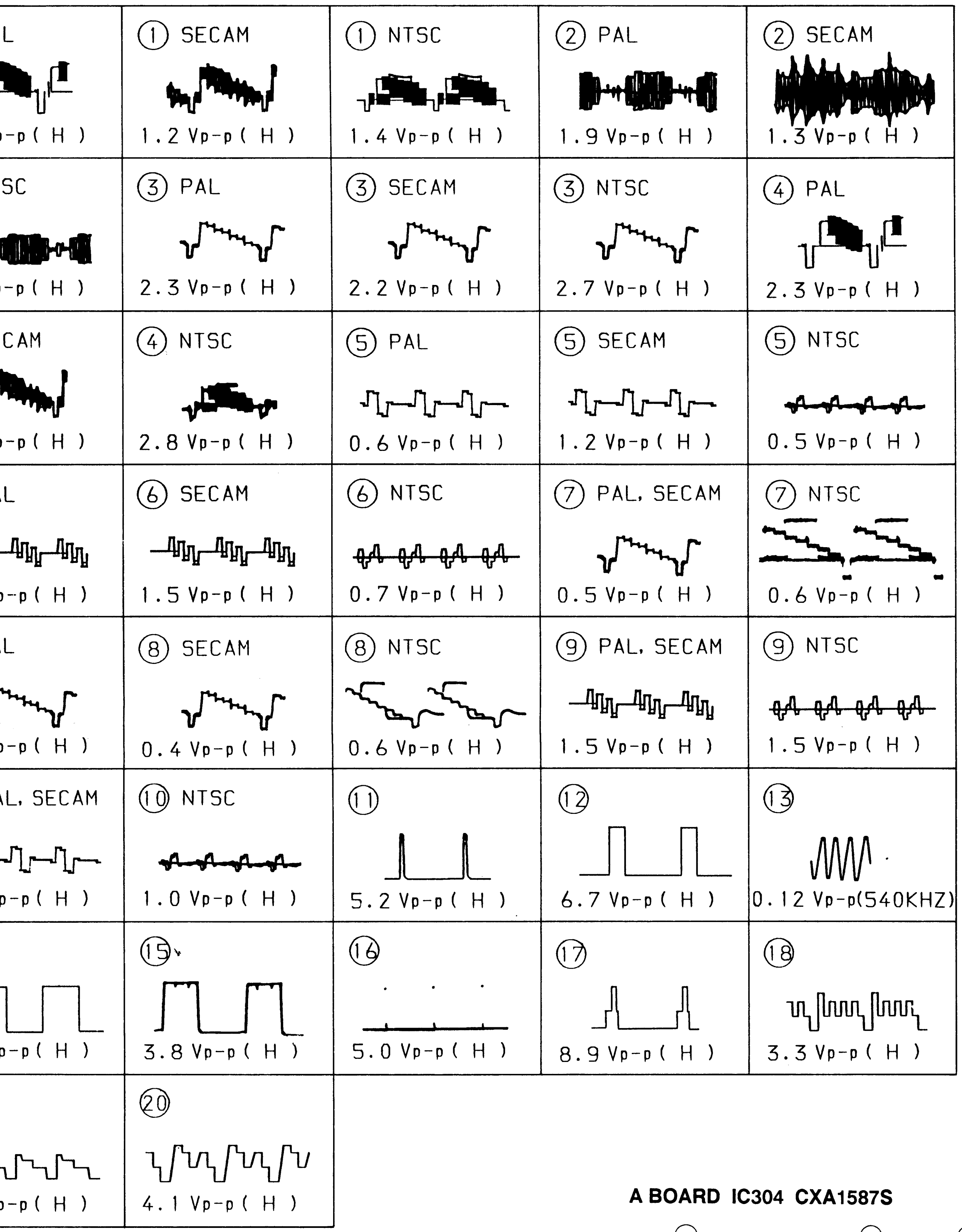
A BOARD IC251/261 TDA2052


2
6
1
5
7
MUTE/ ATTESA
3
4

A BO



ORMS A BOARD



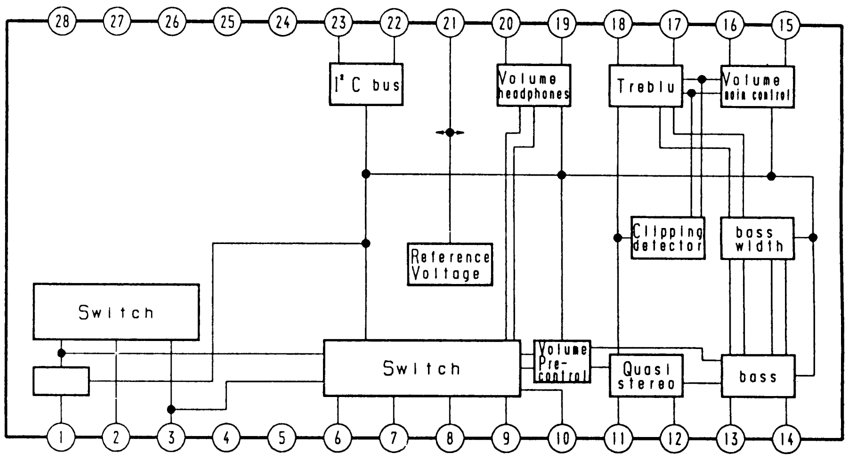
ndicated with the mark ※
ematic diagram are shown
e below.

D

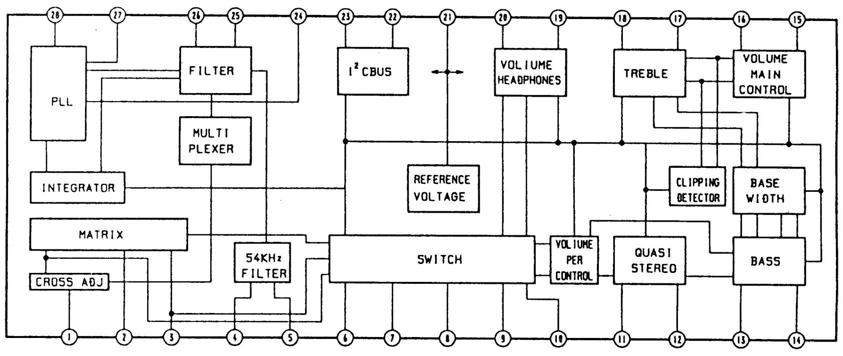
PAL	SECAM	NTSC3.58	NTSC4.43
0.0	0.0	4.8	4.9
0.0	5.0	5.0	0.0
4.7	4.2	3.6	4.1
4.8	4.4	4.6	4.8
0.0	0.0	0.0	1.6
5.5	5.5	5.5	0.1
0.0	5.5	5.5	0.0
0.0	0.0	0.0	1.6

A2941B	A2941D	A2943E	A2941K	A2942U
1MF	1MF	1MF	1MF	0.01MF
1MF	2.2MF	2.2MF	2.2MF	2.2MF
470PF	-	-	-	-
DAN204K	-	-	-	-
DAN204K	-	-	-	-
TDA6612	TDA6612	TDA6612	TDA6612	TDA6622
IFH-389F	IFH-389	IFH-389	IFH-389	IFH-395
12K	-	-	-	-
330	-	-	-	-
120	-	-	-	-
0	-	-	-	-
UV916H	UV916H	UV916H	UV916H	U944C

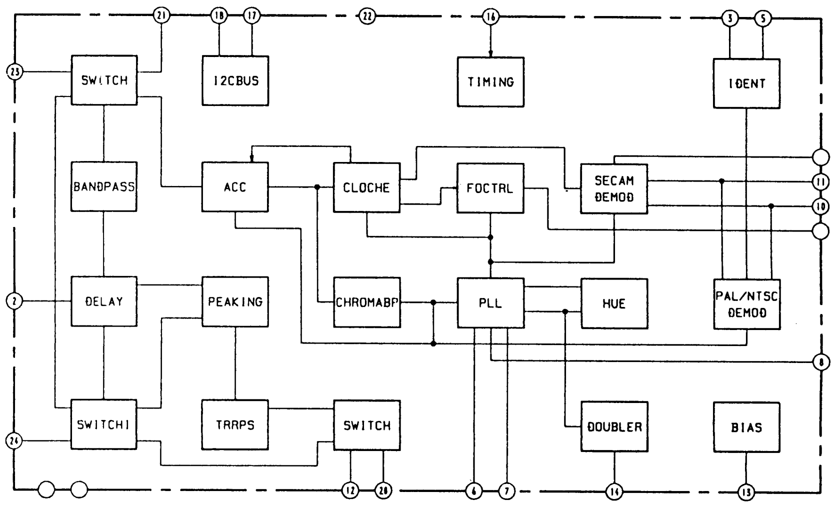
A BOARD IC201 TDA6622 (UK Model only)


I²C bus
Volume headphones
Treblu
Volume main control
Reference Voltage
Clipping detector
bass width
Switch
Switch
Volume Pre-control
Quasi stereo
bass
28
27
26
25
24
23
22
21
20
19
18
17
16
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14

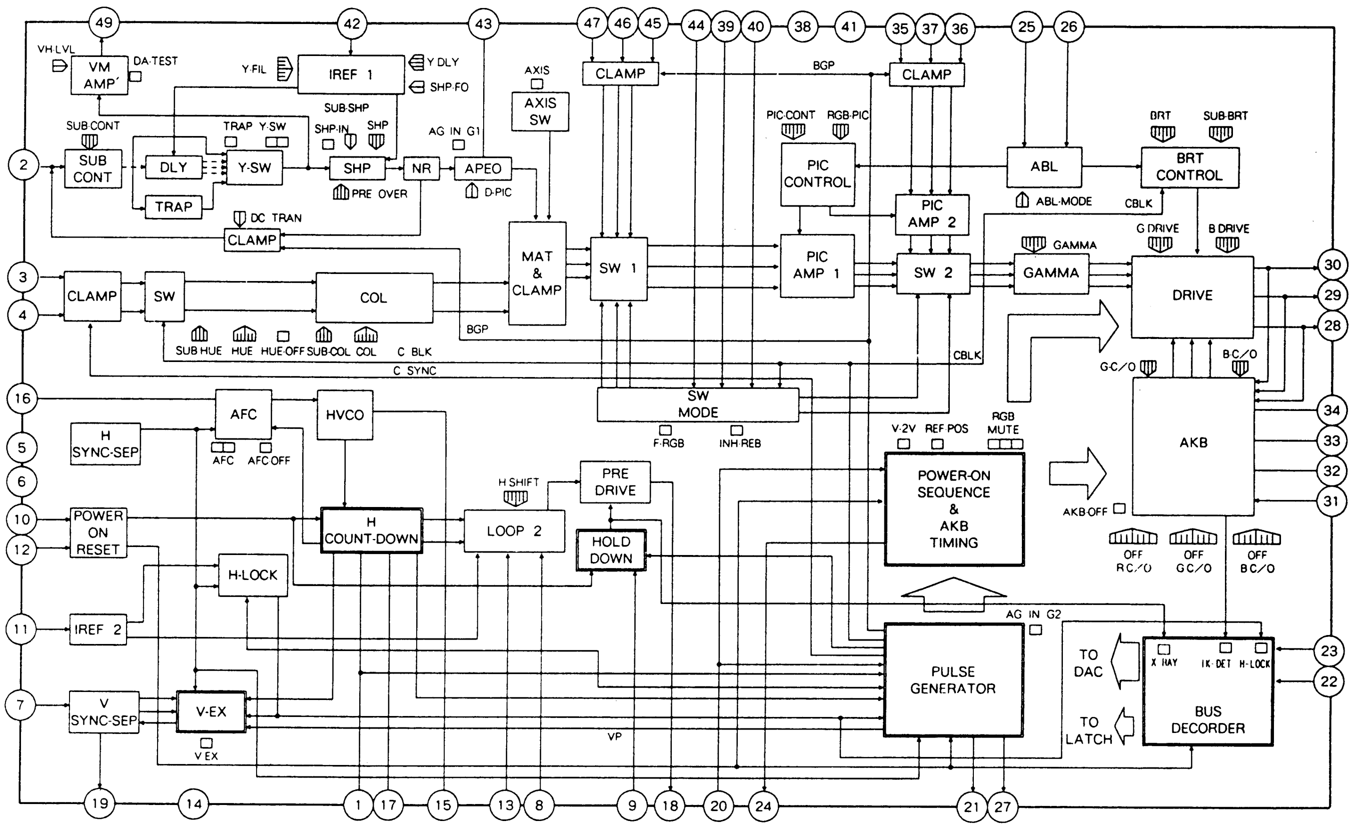
A BOARD IC201 TDA6612


PLL
FILTER
MULTI PLEXER
I²CBUS
VOLUME HEADPHONES
TREBLE
VOLUME MAIN CONTROL
INTEGRATOR
REFERENCE VOLTAGE
CLIPPING DETECTOR
BASE WIDTH
MATRIX
CROSS ADJ
54KHz FILTER
SWITCH
VOLUME PER CONTROL
QUASI STEREO
BASS

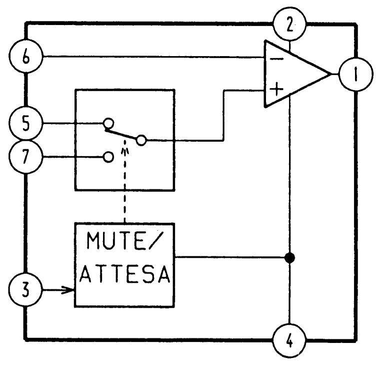
A BOARD IC301 TDA9145/N2B


SWITCH
I2CBUS
TIMING
IDENT
BANDPASS
ACC
CLOCHE
FOCTRL
SECAM DEMOD
DELAY
PEAKING
CHROMABP
PLL
HUE
PAL/NTSC DEMOD
SWITCHI
TRAPS
SWITCH
DOUBLER
BIAS

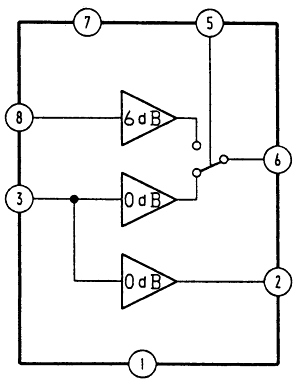
A BOARD IC304 CXA1587S


VH LVL
VM AMP
DA-TEST
Y-FIL
IREF 1
Y DLY
SHP-FO
AXIS
AXIS SW
CLAMP
BGP
CLAMP
SUB CONT
TRAP Y-SW
SUB-SHP
SHP-IN SHP
AG IN G1
SUB CONT
DLY
Y-SW
SHP
NR
APEO
TRAP
PRE OVER
D-PIC
DC TRAN
CLAMP
PIC CONT RGB-PIC
PIC CONTROL
PIC AMP 2
ABL
ABL-MODE
CBLK
BRT SUB-BRT
BRT CONTROL
MAT & CLAMP
SW 1
PIC AMP 1
SW 2
GAMMA
GAMMA
G DRIVE B DRIVE
DRIVE
CLAMP
SW
COL
SUB HUE HUE HUE OFF SUB-COL COL
C BLK
C SYNC
BGP
CBLK
GC/O
BC/O
SW MODE
F-RGB INH-REB
H SYNC-SEP
AFC
AFC AFC OFF
HVCO
V-2V REF POS
RGB MUTE
POWER-ON SEQUENCE & AKB TIMING
AKB
AKBOFF
POWER ON RESET
H COUNT-DOWN
H SHIFT
PRE DRIVE
LOOP 2
HOLD DOWN
OFF RC/O
OFF GC/O
OFF BC/O
H-LOCK
IREF 2
AG IN G2
PULSE GENERATOR
TO DAC
X RAY
IK DET
H-LOCK
V SYNC-SEP
V-EX
V-EX
VP
TO LATCH
BUS DECORDER

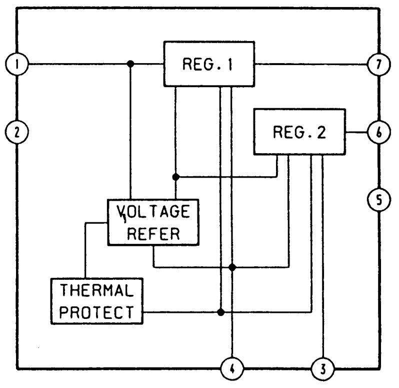
A BOARD IC251/261 TDA2052


MUTE/ ATTESA
1
2
3
4
5
6
7

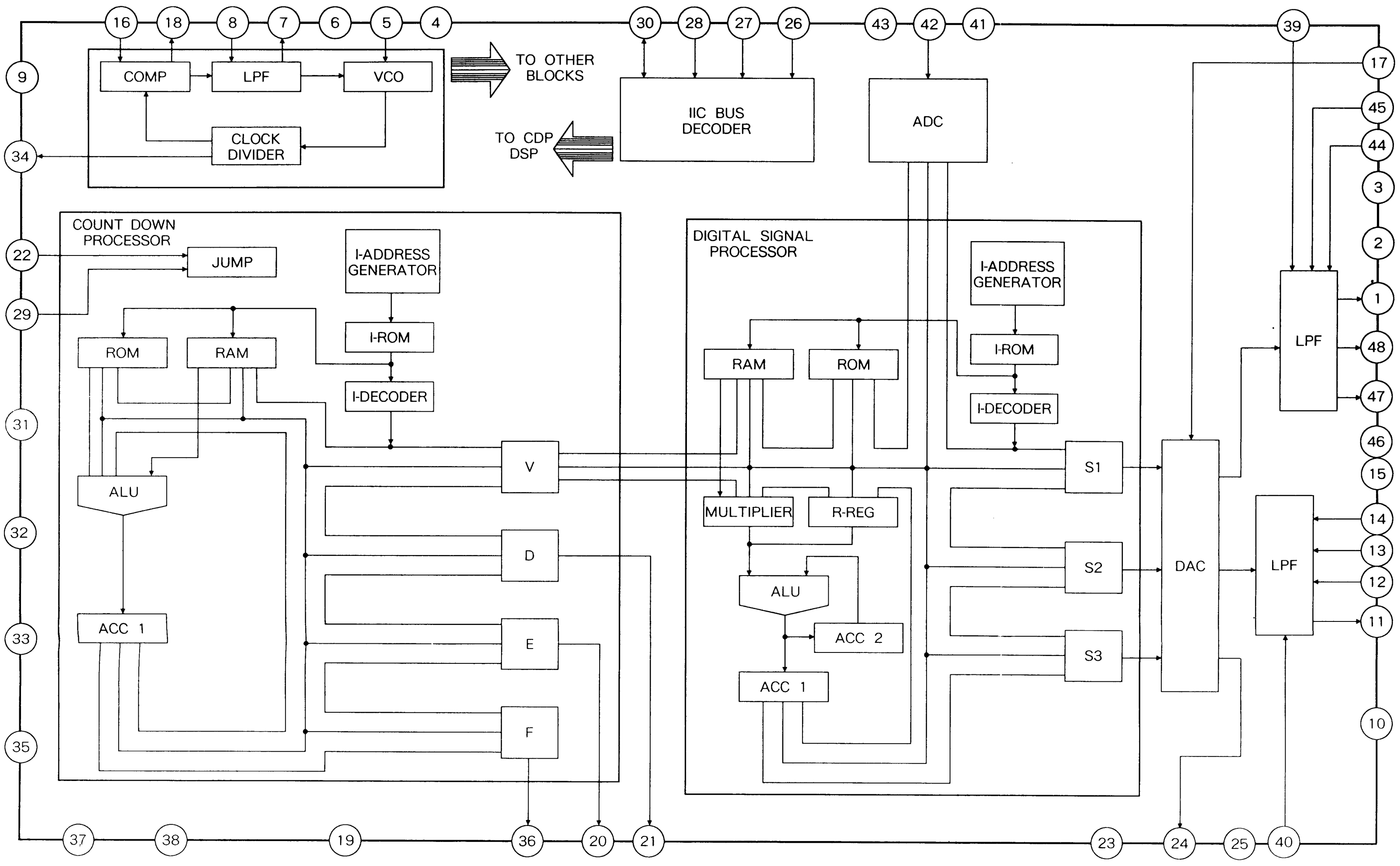
A BOARD IC402 TEA2114


6dB
0dB
0dB
1
2
3
5
6
7
8

A BOARD IC681 TDA8138A


REG. 1
REG. 2
VOLTAGE REFER
THERMAL PROTECT
1
2
3
4
5
6
7

M2 BOARD IC561 CXD2018Q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18
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45
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3
2
1
48
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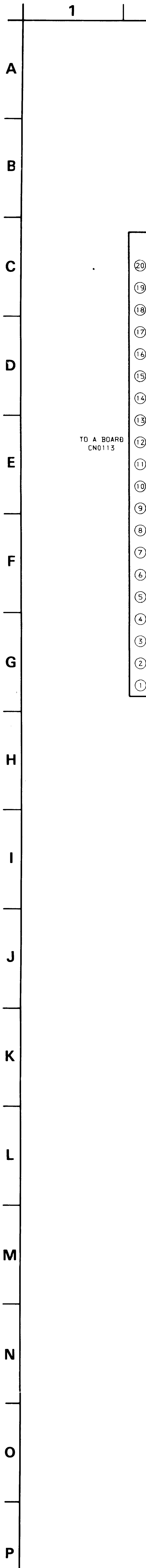
46
15
14
13
12
11
10
22
29
31
32
33
35
37
38
19
36
20
21
23
24
25
40
COMP
LPF
VCO
CLOCK DIVIDER
TO OTHER BLOCKS
TO CDP DSP
IIC BUS DECODER
ADC
COUNT DOWN PROCESSOR
JUMP
I-ADDRESS GENERATOR
I-ROM
I-DECODER
ROM
RAM
ALU
ACC 1
V
D
E
F
DIGITAL SIGNAL PROCESSOR
I-ADDRESS GENERATOR
I-ROM
I-DECODER
RAM
ROM
MULTIPLIER
R-REG
ALU
ACC 2
ACC 1
S1
S2
S3
DAC
LPF
LPF


1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
TO A BOARD CN0113
20
19
18
17
16
15
14
13
12
11
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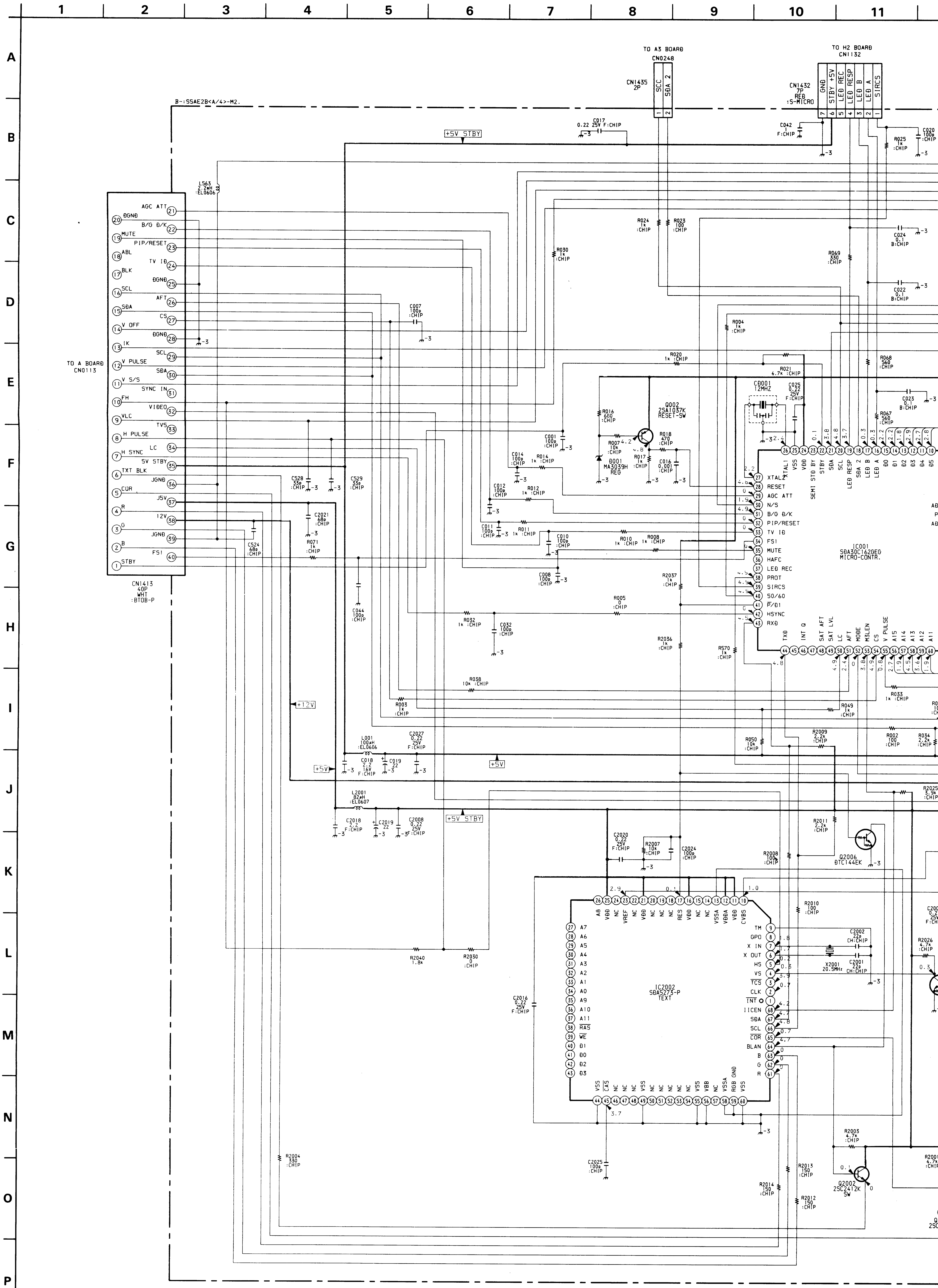
7
6
5
4
3
2
1


1
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11
A
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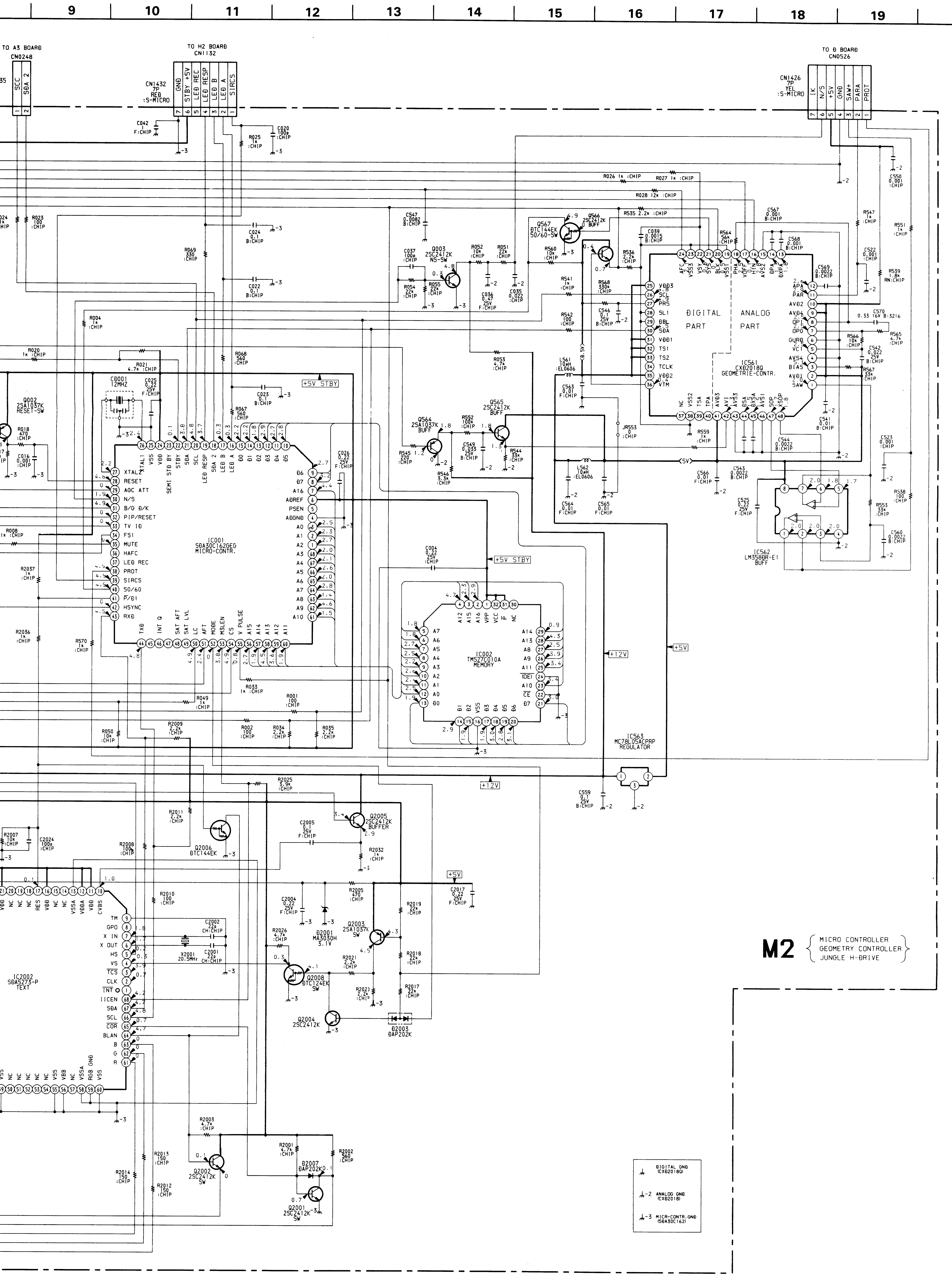
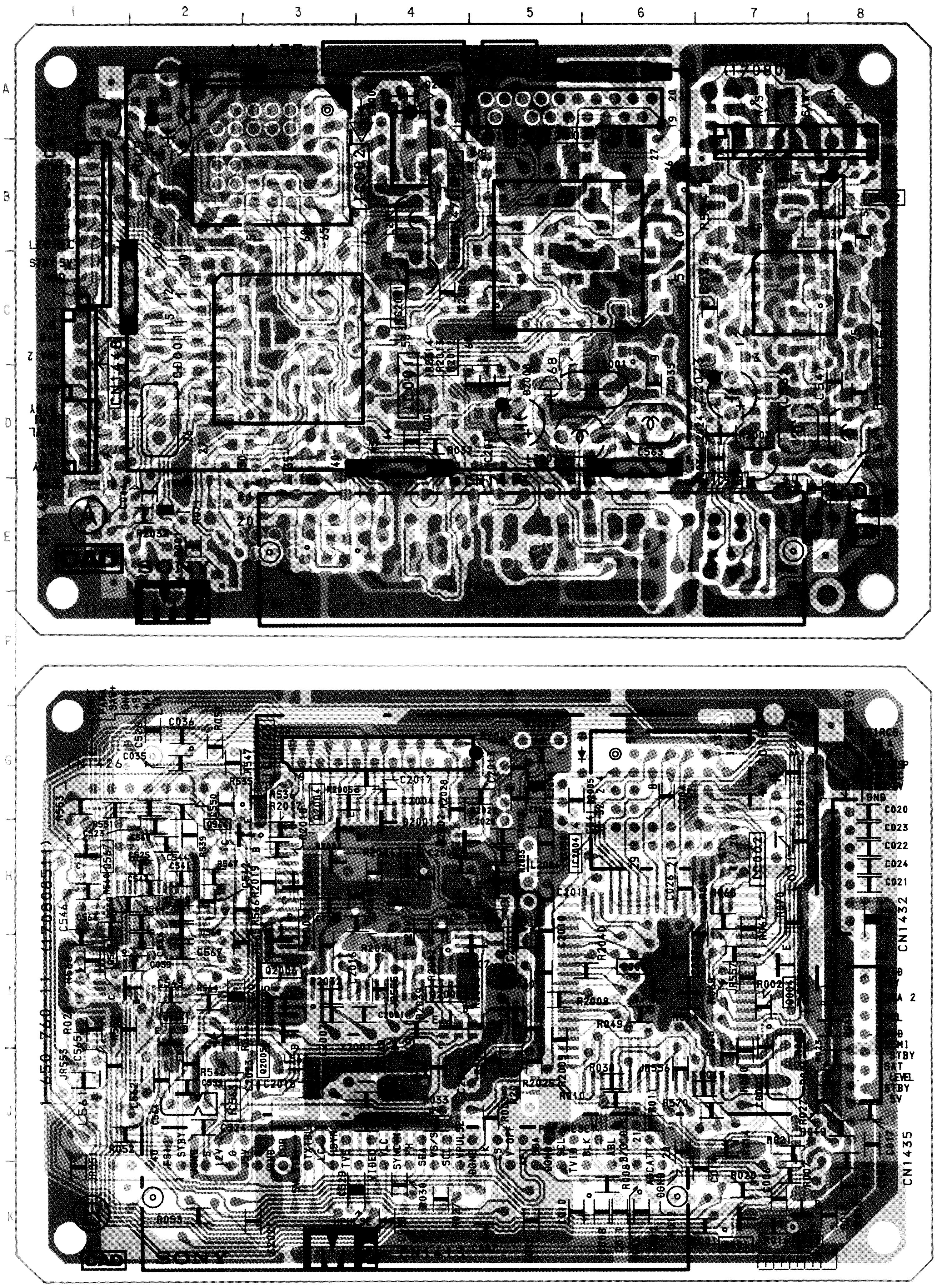
C
D
E
F
G
H
I
J
K
L
M
N
O
P
B-:SSAE2B<A/4>-M2.
TO A3 BOARD
CN0248
CN1435
2P
SCC
SDA 2
TO H2 BOARD
CN1132
CN1432
7P
RED
:S-MICRO
GND
STBY +5V
LED REC
LED RESP
LED B
LED A
SIRCS
+5V STBY
C017
0.22 25V F:CHIP
C042
1
F:CHIP
R025
1k
:CHIP
C020
100p
:CHIP
L563
2.2µH
:EL0606
TO A BOARD
CN0113
AGC ATT
DGND
B/G D/K
MUTE
PIP/RESET
ABL
TV ID
BLK
DGND
SCL
AFT
SDA
CS
V OFF
DGND
IK
SCL
V PULSE
SDA
V S/S
SYNC IN
FH
VIDEO
VLC
TVS
H PULSE
LC
H SYNC
5V STBY
TXT BLK
JGND
COR
J5V
R
12V
G
JGND
B
FS1
STBY
CN1413
40P
WHT
:BTOB-P
R024
1k
:CHIP
R023
100
:CHIP
R030
1k
:CHIP
C024
0.1
B:CHIP
R069
330
:CHIP
C022
0.1
B:CHIP
C007
100p
:CHIP
R004
1k
:CHIP
R020
1k :CHIP
R021
4.7k :CHIP
R068
560
:CHIP
CD001
12MHZ
C025
0.22
25V
F:CHIP
C023
0.1
B:CHIP
R067
560
:CHIP
Q002
2SA1037K
RESET-SW
R016
600
:CHIP
R007
10k
:CHIP
D001
MA3039H
REG
R018
470
:CHIP
R017
1k
:CHIP
C016
0.001
:CHIP
C001
100p
:CHIP
C014
100p
:CHIP
R014
1k :CHIP
C012
100p
:CHIP
R012
1k :CHIP
C011
100p
:CHIP
R011
1k :CHIP
C010
100p
:CHIP
R010
1k :CHIP
R008
1k :CHIP
C008
100p
:CHIP
C528
33p
:CHIP
C529
33p
:CHIP
C2021
68p
:CHIP
C524
68p
:CHIP
R071
1k
:CHIP
C044
100p
:CHIP
XTAL1
VSS
VDD
SEMI STD BY
STBY
SDA
SCL
LED RESP
SDA 2
LED B
LED A
D0
D1
D2
D3
D4
D5
XTAL2
RESET
AGC ATT
N/S
B/G D/K
PIP/RESET
TV ID
FS1
MUTE
HAFC
LED REC
PROT
SIRCS
50/60
P/D1
HSYNC
RXD
TXD
INT Q
SAT AFT
SAT LVL
LC
AFT
MODE
M3LEN
CS
V PULSE
A15
A14
A13
A12
A11
IC001
SDA30C162GEG
MICRO-CONTR.
R2037
1k
:CHIP
R005
0
:CHIP
R032
1k :CHIP
C032
100p
:CHIP
R2036
1k
:CHIP
R570
1k
:CHIP
R038
10k :CHIP
R033
1k :CHIP
R003
1k
:CHIP
R049
1k
:CHIP
+12V
L001
100µH
:EL0606
C2027
0.22
25V
F:CHIP
C018
2.2
16V
F:CHIP
C019
22
+5V
R050
10k
:CHIP
R2009
2.2k
:CHIP
R002
100
:CHIP
R034
2.2k
:CHIP
L2001
82µH
:EL0607
C2018
2.2
F:CHIP
C2019
22
C2008
0.22
25V
F:CHIP
R2025
3.9k
:CHIP
R2011
2.2k
:CHIP
Q2006
DTC144EK
C2020
0.22
25V
F:CHIP
R2007
10k
:CHIP
C2024
100p
:CHIP
R2008
100
:CHIP
R2010
100
:CHIP
A8
VDD
NC
VREF
NC
VDD
NC
NC
RES
VDD
NC
NC
VSSA
VDDA
CVBS
TM
GPO
X IN
X OUT
HS
VS
TCS
CLK
INT
IICEN
SDA
SCL
COR
BLAN
B
G
R
A7
A6
A5
A4
A3
A2
A1
A0
A9
A10
A11
RAS
WE
D1
D0
D2
D3
VSS
CAS
NC
NC
NC
VSS
NC
NC
NC
NC
VSS
VBB
NC
VSSA
RGB GND
VSS
IC2002
SDA5273-P
TEXT
C2002
22p
CH:CHIP
X2001
20.5MHz
C2001
22p
CH:CHIP
R2026
4.7k
:CHIP
C2016
0.22
25V
F:CHIP
R2040
1.8k
R2030
0
:CHIP
R2003
4.7k
:CHIP
Q2002
2SC2412K
SW
R2004
330
:CHIP
C2025
100p
:CHIP
R2013
150
:CHIP
R2014
150
:CHIP
R2012
150
:CHIP


9
10
11
12
13
14
15
16
17
18
19
TO A3 BOARD
CN0248
SCC
SDA 2
TO H2 BOARD
CN1132
CN1432
7P
RED
:S-MICRO
GND
STBY +5V
LED REC
LED RESP
LED B
LED A
SIRCS
TO D BOARD
CN0526
CN1426
7P
YEL
:S-MICRO
IK
N/S
+5V
GND
SAW+
PARA
PROT
Q002
2SA1037K
RESET-SW
CD001
12MHZ
+5V STBY
IC001
SDA30C162GEG
MICRO-CONTR.
XTAL2
RESET
AGC ATT
N/S
B/G D/K
PIP/RESET
TV ID
FS1
MUTE
HAFC
LED REC
PROT
SIRCS
50/60
P/D1
HSYNC
RXD
XTAL1
VSS
VDD
STBY
SEMI STD BY
SDA
SCL
LED RESP
SDA 2
LED B
LED A
D0
D1
D2
D3
D4
D5
D6
D7
A16
ADREF
PSEN
ADGND
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
TXD
INT Q
SAT AFT
SAT LVL
LC
AFT
MODE
M3LEN
CS
V PULSE
A15
A14
A13
A12
A11
Q003
2SC2412K
NS-SW
Q567
DTC144EK
50/60-SW
Q566
2SC2412K
BUFF
Q564
2SA1037K
BUFF
Q565
2SC2412K
BUFF
IC561
CXD2018Q
GEOMETRIE-CONTR.
DIGITAL PART
ANALOG PART
VDD3
SCL
PRS
SL1
DBL
SDA
VDD1
TS1
TS2
TCLK
VDD2
VTM
AFC
VSS3
VSY
SYO
BLK
VSS1
PHA
VOFF
HIN
AVS2
DPA
DXPA
APA
PAR
AVD2
AVD4
OP1
OPO
GURD
VC1
AVS4
BIAS
AVD1
SAW
NC
VSS2
TSA
TPA
AVD3
AV1
AVS3
DSA
DXSA
AVS1
SOP
XSOP
L561
10μH
:EL0606
L562
10μH
:EL0606
JR553
IC562
LM358DR-E1
BUFF
IC002
TMS27C010A
MEMORY
A12
A15
A16
VPP
VCC
P
NC
A14
A13
A8
A9
A11
OE
A10
CE
D7
D0
D1
D2
VSS
D3
D4
D5
D6
+5V STBY
+12V
+5V
IC563
MC78L05ACPRP
REGULATOR
Q2006
DTC144EK
Q2005
2SC2412K
BUFFER
Q2003
2SA1037K
SW
D2001
MA3030H
3.1V
Q2008
DTC124EK
SW
Q2004
2SC2412K
D2003
DAP202K
X2001
20.5MHz
IC2002
SDA5273-P
TEXT
TM
GPO
X IN
X OUT
HS
VS
TCS
CLK
INT
IICEN
SDA
SCL
COR
BLAN
B
G
R
VDD
NC
RES
VSSA
VDDA
CVBS
VSS
VBB
RGB GND
Q2002
2SC2412K
SW
D2007
DAP202K
Q2001
2SC2412K
SW
DIGITAL GND (CXD2018Q)
-2 ANALOG GND (CXD2018)
-3 MICR-CONTR. GND (SDA30C162)

M2 MICRO CONTROLLER
GEOMETRY CONTROLLER
JUNGLE H-DRIVE

– M2 BOARD –


1
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6
7
8
A
B
C
D
E
F
G
H
I
J
K
CN1426
CN1432
CN1435
IC2003
SONY
M2

IC	
IC001	C - 4
IC002	B - 3, H - 7
IC561	C - 8
IC562	B - 8
IC563	D - 7, J - 3
IC2001	C - 4, I - 5
IC2002	C- 5
IC2003	B - 5, G - 3
IC2004	B - 4, H - 5

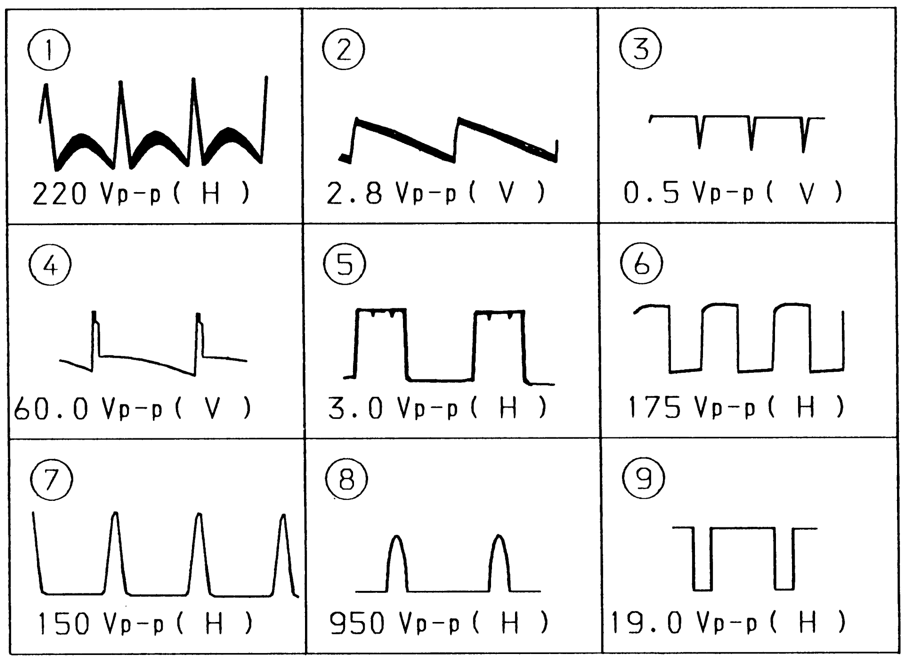
TRANSISTOR	
Q002	K - 7
Q003	I - 6
Q564	I - 2
Q565	I - 1
Q566	G - 2
Q567	H - 1
Q2001	H - 5
Q2002	I - 4
Q2003	H - 3
Q2005	J - 3
Q2006	I - 3
Q2008	H - 4

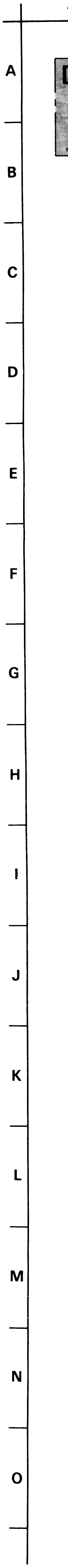
DIODE	
D001	K - 7
D2001	G - 4
D2002	H - 4
D2003	H - 3

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

WAVEFORMS D BOARD

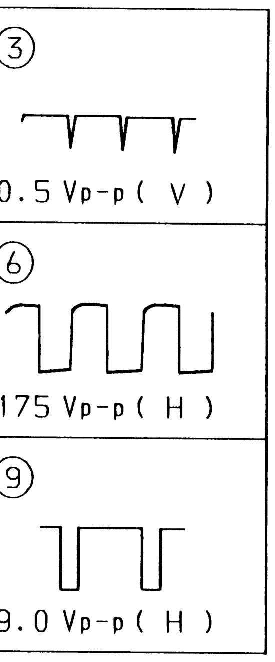


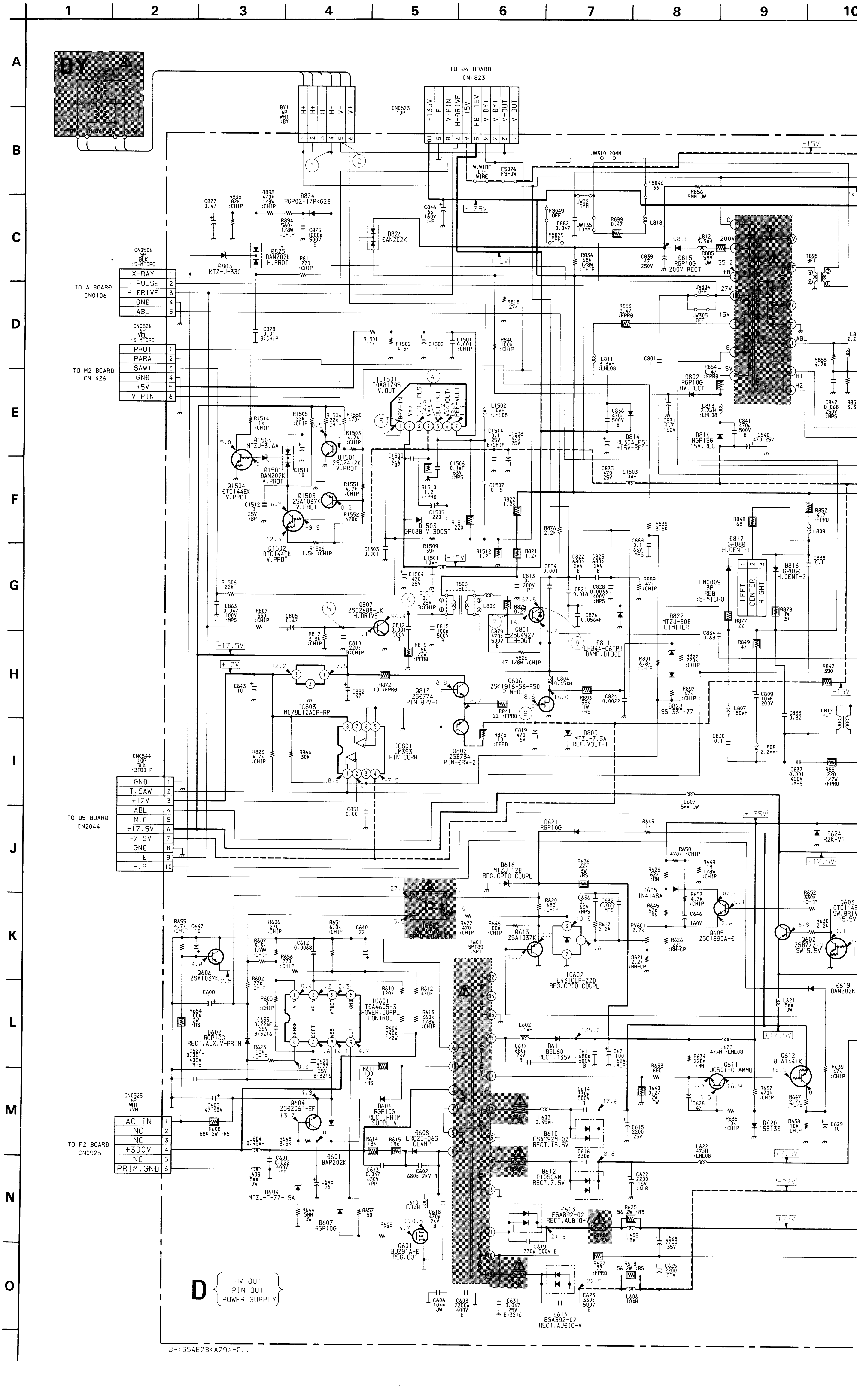

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

IC	
C001	C - 4
C002	B - 3, H - 7
C561	C - 8
C562	B - 8
C563	D - 7, J - 3
C2001	C - 4, I - 5
C2002	C- 5
C2003	B - 5, G - 3
C2004	B - 4, H - 5

TRANSISTOR	
Q002	K - 7
Q003	I - 6
Q564	I - 2
Q565	I - 1
Q566	G - 2
Q567	H - 1
Q2001	H - 5
Q2002	I - 4
Q2003	H - 3
Q2005	J - 3
Q2006	I - 3
Q2008	H - 4

DIODE	
0001	K - 7
02001	G - 4
02002	H - 4
02003	H - 3




1
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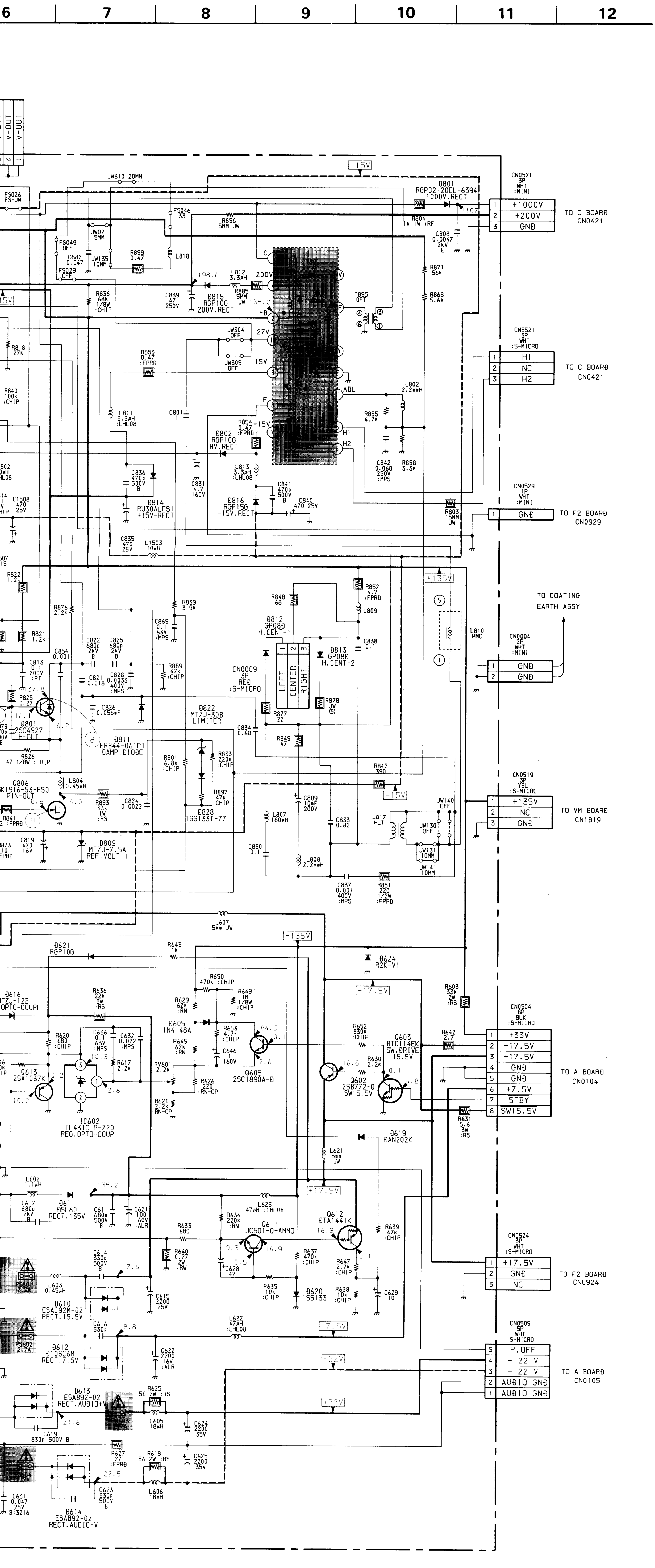
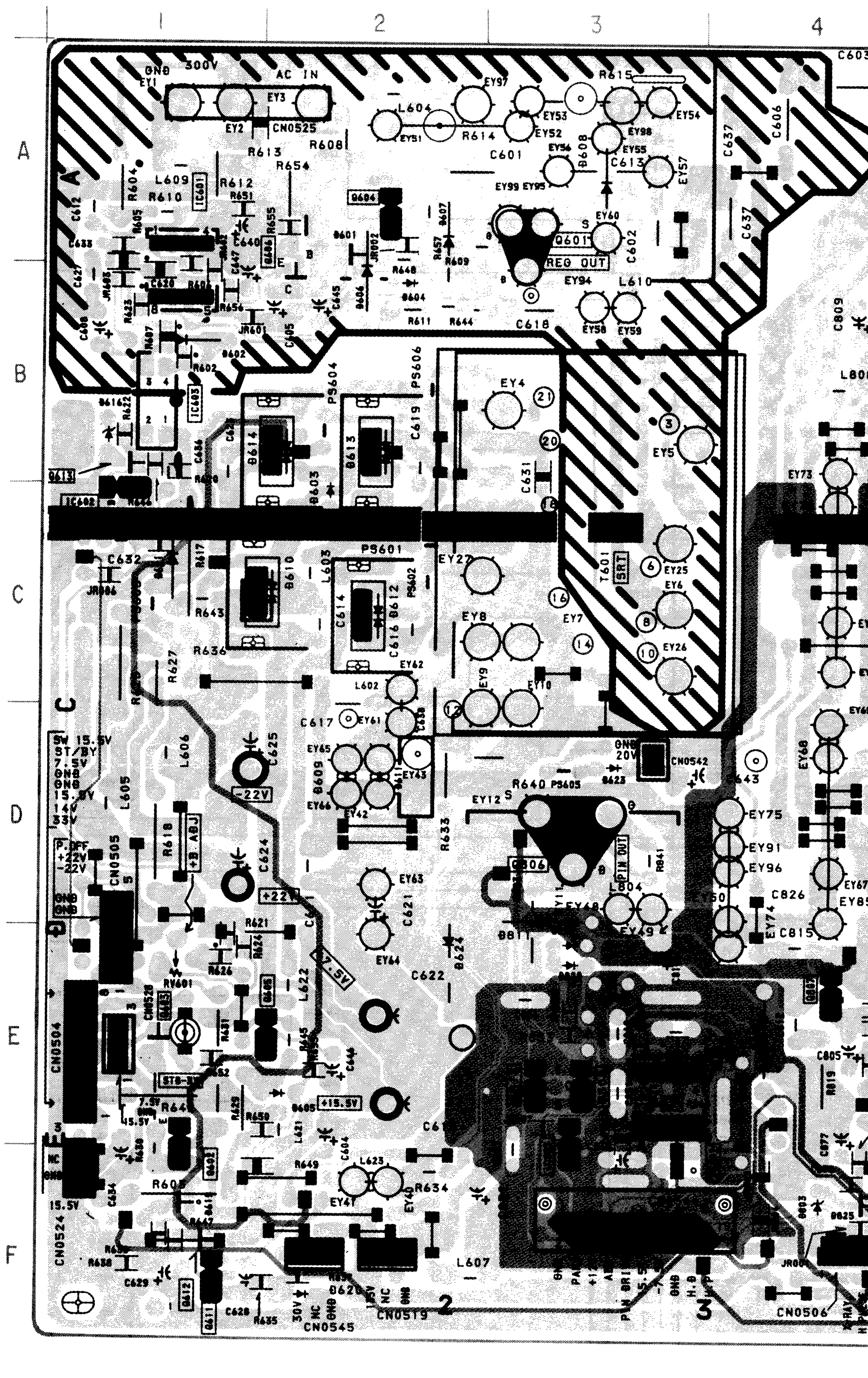
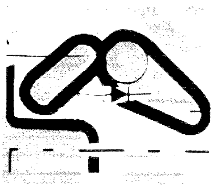
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
DY
TO D4 BOARD
CN1823
CN0523 10P
DY1 6P WHT :GY
H+
H+
H-
H-
V-
V+
+135V
E
V-PIN
H-DRIVE
-15V
FBT 15V
V-DY+
V-DY+
V-OUT
V-OUT
TO A BOARD CN0106
CN0506 5P BLK :S-MICRO
X-RAY
H PULSE
H DRIVE
GND
ABL
TO M2 BOARD CN1426
CN0526 6P YEL :S-MICRO
PROT
PARA
SAW+
GND
+5V
V-PIN
TO D5 BOARD CN2044
CN0544 10P BLK :BTOB-P
GND
T.SAW
+12V
ABL
N.C
+17.5V
-7.5V
GND
H.D
H.P
TO F2 BOARD CN0925
CN0525 6P WHT :VH
AC IN
NC
NC
+300V
NC
PRIM.GND
IC1501 TDA8179S V.OUT
Q1501 2SC2412K V.PROT
Q1502 DTC144EK V.PROT
Q1503 2SA1037K V.PROT
Q1504 DTC144EK V.PROT
D1503 GP08D V.BOOST
D803 MTZ-J-33C
D824 RGP02-17PKG23
D825 DAN202K H.PROT
D826 DAN202K
Q807 2SC2688-LK H.DRIVE
T803 HDT
Q801 2SC4927 H-OUT
D811 ERB44-06TP1 DAMP.DIODE
Q806 2SK1916-53-F50 PIN-OUT
Q813 2SB774 PIN-DRV-1
Q802 2SB734 PIN-DRV-2
IC801 LM393 PIN-CORR
IC803 MC78L12ACP-RP
D809 MTZJ-7.5A REF.VOLT-1
D828 1SS133T-77
D822 MTZJ-30B LIMITER
D814 RU3OALFS1 +15V-RECT
D815 RGP10G 200V.RECT
D816 RGP15G -15V.RECT
D802 RGP10G HV.RECT
D812 GP08D H.CENT-1
D813 GP08D H.CENT-2
CN0009 3P RED :S-MICRO
LEFT
CENTER
RIGHT
T801 FBT
T895 DFT
IC603 SHF6170-2 OPTO-COUPLER
IC601 TDA4605-3 POWER.SUPPL CONTROL
IC602 TL431CLP-Z20 REG.OPTO-COUPL
D616 MTZJ-12B REG.OPTO-COUPL
D621 RGP10G
D605 1N4148A
Q605 2SC1890A-D
Q606 2SA1037K
Q613 2SA1037K
D602 RGP10G RECT.AUX.V-PRIM
Q604 2SD2061-EF
D601 DAP202K
D604 MTZJ-T-77-15A
D606 RGP10G RECT.PRIM SUPPL-V
D608 ERC25-06S CLAMP
D607 RGP10G
Q601 BUZ91A-E REG.OUT
T601 SMT89 :SRT
D611 D5L60 RECT.135V
D610 ESAC92M-02 RECT.15.5V
D612 D10SC6M RECT.7.5V
D613 ESAB92-02 RECT.AUDIO+V
D614 ESAB92-02 RECT.AUDIO-V
PS601 2.7A
PS602 2.7A
PS603 2.7A
PS604 2.7A
Q611 JC501-Q-AMMO
Q612 DTA144TK
Q602 2SB772-Q SW15.5V
Q603 DTC114E SW.DRIV 15.5V
D619 DAN202K
D620 1SS133
D624 R2K-V1
+135V
+15V
-15V
+17.5V
+12V
+7.5V
-22V
+22V
D
HV OUT
PIN OUT
POWER SUPPLY
B-:SSAE2B<A29>-D..


6
7
8
9
10
11
12
D801 RGP02-20EL-6394 1000V.RECT
CN0521 3P WHT :MINI
+1000V
+200V
GND
TO C BOARD CN0421
CN5521 3P WHT :S-MICRO
H1
NC
H2
TO C BOARD CN0421
D815 RGP10G 200V.RECT
D802 RGP10G HV.RECT
D814 RU30ALFS1 +15V-RECT
D816 RGP15G -15V.RECT
CN0529 1P WHT :MINI
GND
TO F2 BOARD CN0929
TO COATING EARTH ASSY
L810 PMC
CN0004 2P WHT :MINI
GND
GND
CN0009 3P RED :S-MICRO
LEFT CENTER RIGHT
D812 GP08D H.CENT-1
D813 GP08D H.CENT-2
D822 MTZJ-30B LIMITER
Q801 2SC4927 H-OUT
D811 ERB44-06TP1 DAMP.DIODE
Q806 PIN-OUT
D828 1SS133T-77
D809 MTZJ-7.5A REF.VOLT-1
CN0519 3P YEL :S-MICRO
+135V
NC
GND
TO VM BOARD CN1819
D621 RGP10G
D624 R2K-V1
D616 OPTO-COUPL
D605 1N4148A
Q605 2SC1890A-D
Q603 DTC114EK SW.DRIVE 15.5V
Q602 2SB772-Q SW15.5V
Q613 2SA1037K
IC602 TL431CLP-Z20 REG.OPTO-COUPL
CN0504 8P BLK :S-MICRO
+33V
+17.5V
+17.5V
GND
GND
+7.5V
STBY
SW15.5V
TO A BOARD CN0104
D619 DAN202K
D611 D5L60 RECT.135V
Q611 JC501-Q-AMMO
Q612 DTA144TK
D620 1SS133
CN0524 3P WHT :S-MICRO
+17.5V
GND
NC
TO F2 BOARD CN0924
D610 ESAC92M-02 RECT.15.5V
D612 D10SC6M RECT.7.5V
D613 ESAB92-02 RECT.AUDIO+V
D614 ESAB92-02 RECT.AUDIO-V
PS601 2.7A
PS602 2.7A
PS603 2.7A
PS604 2.7A
CN0505 5P WHT :S-MICRO
P.OFF
+ 22 V
- 22 V
AUDIO GND
AUDIO GND
TO A BOARD CN0105

- D BOARD -

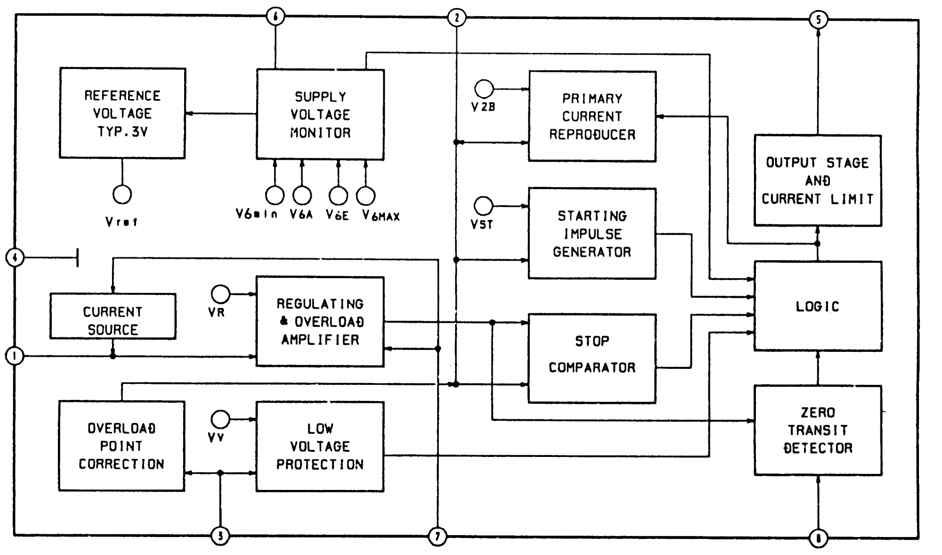

1
2
3
4
A
B
C
D
E
F
C
2
3



NOTE:

The circuit indicated as left contains high voltage of o
600 Vp-p. Care must be paid to prevent an electric shock
inspection or repairing.

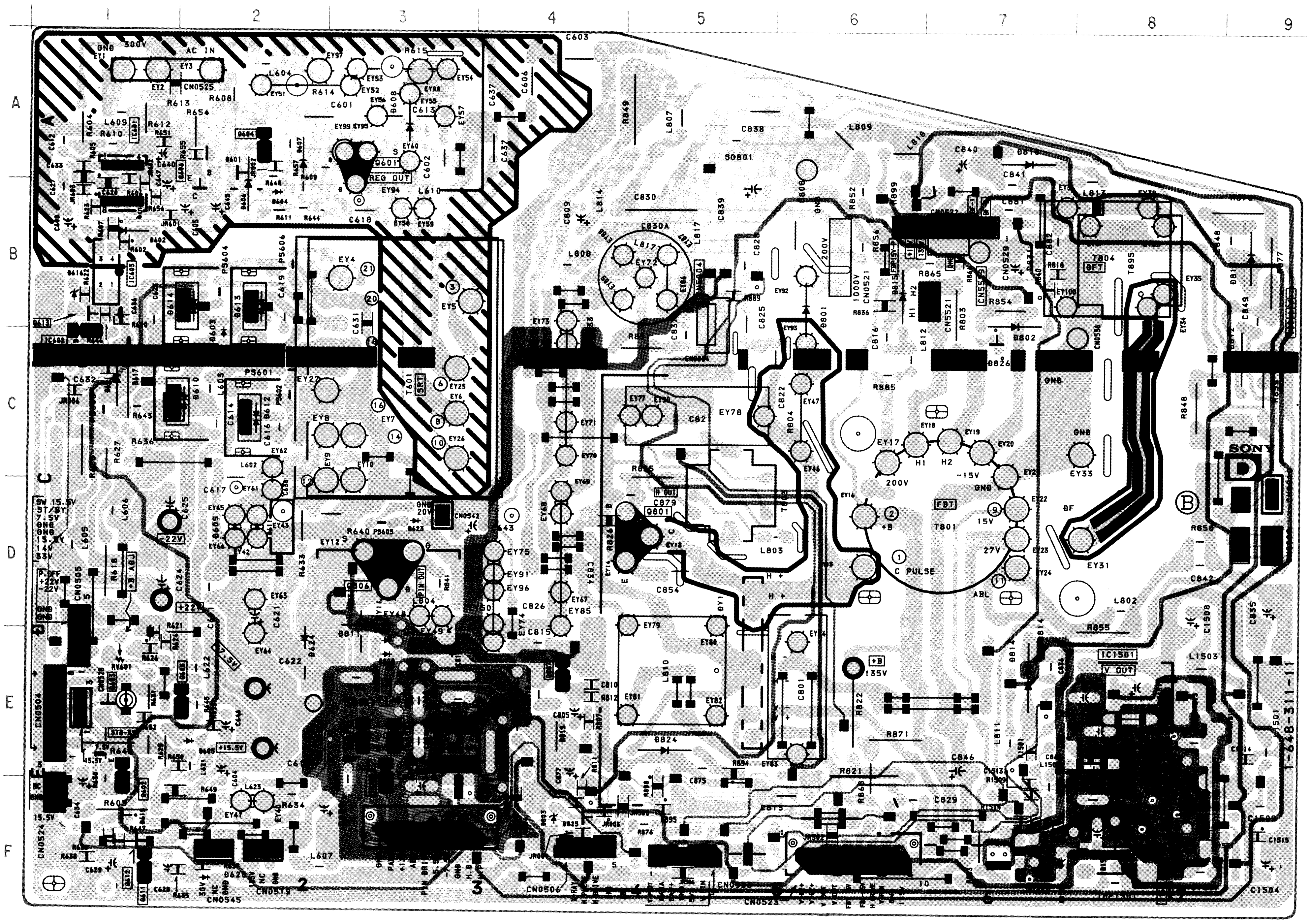
D BOARD IC601 TDA4605-3

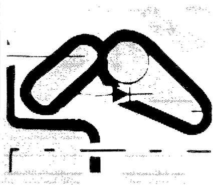

REFERENCE VOLTAGE TYP.3V
Vref
SUPPLY VOLTAGE MONITOR
V6min V6A V6E V6MAX
V2B
PRIMARY CURRENT REPRODUCER
OUTPUT STAGE AND CURRENT LIMIT
VST
STARTING IMPULSE GENERATOR
CURRENT SOURCE
VR
REGULATING & OVERLOAD AMPLIFIER
LOGIC
STOP COMPARATOR
OVERLOAD POINT CORRECTION
VV
LOW VOLTAGE PROTECTION
ZERO TRANSIT DETECTOR
1
2
3
4
5
6
7
8

Note :

- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

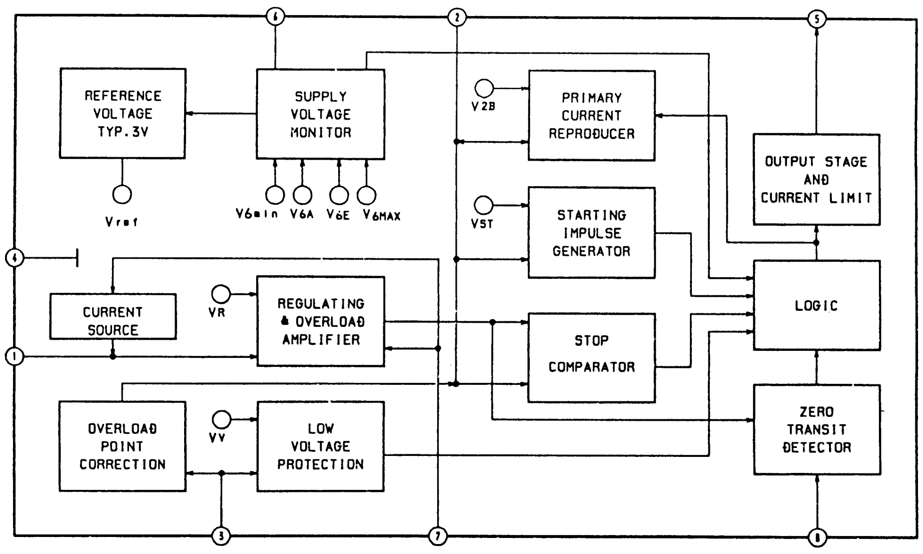
– D BOARD –


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
AC IN
300V
IC601
IC1501
V OUT
FBT
T801
Q801
Q601
REG OUT
H OUT
SRT
CN0505
CN0504
CN0524
CN0545
CN0525
CN0506
CN0523
135V
200V
-15V
15V
27V
C PULSE
ABL
SONY
1-648-311-11
+22V
-22V
+15.5V



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

D BOARD IC601 TDA4605-3

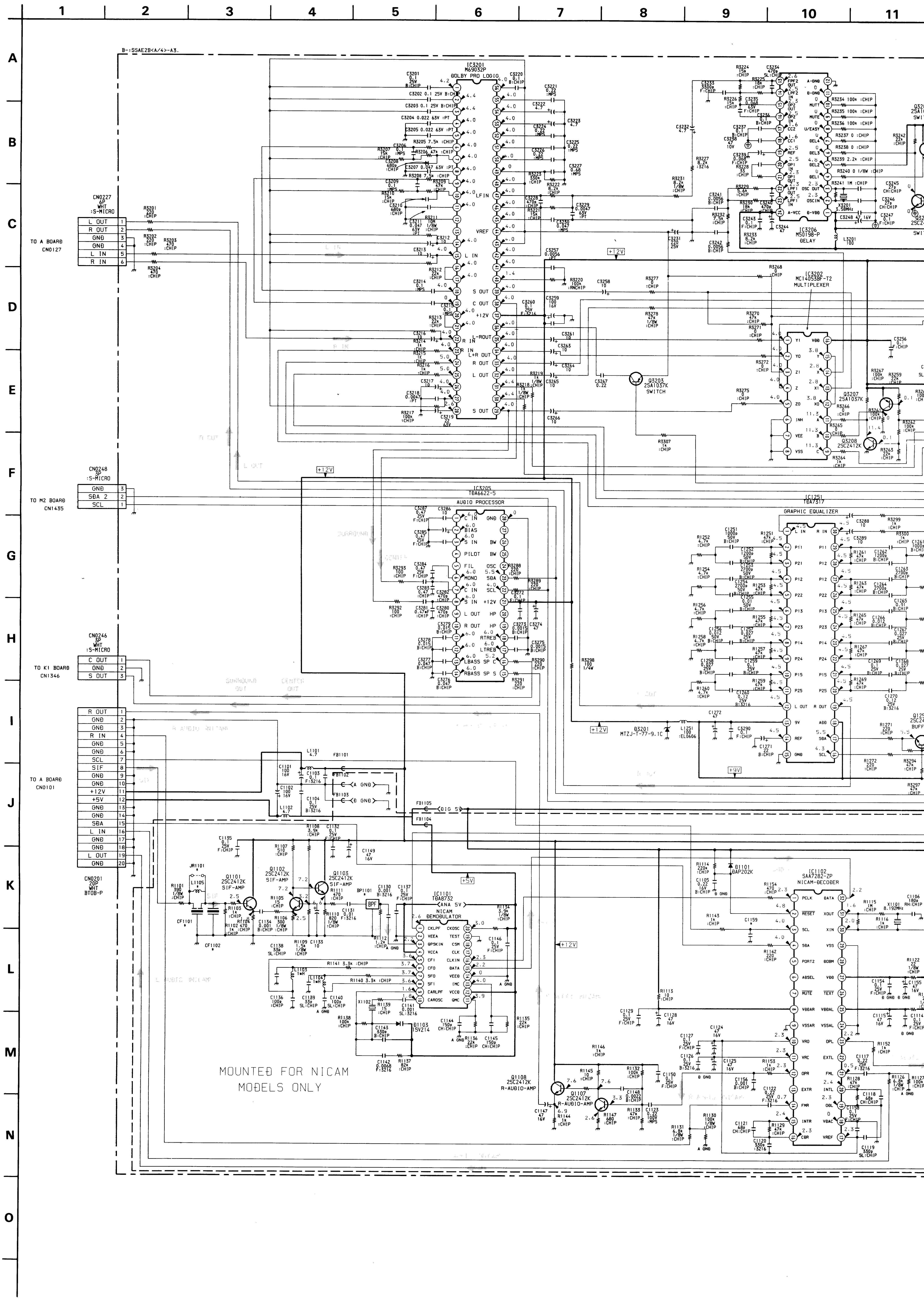

REFERENCE VOLTAGE TYP.3V
SUPPLY VOLTAGE MONITOR
PRIMARY CURRENT REPRODUCER
OUTPUT STAGE AND CURRENT LIMIT
STARTING IMPULSE GENERATOR
LOGIC
CURRENT SOURCE
REGULATING & OVERLOAD AMPLIFIER
STOP COMPARATOR
OVERLOAD POINT CORRECTION
LOW VOLTAGE PROTECTION
ZERO TRANSIT DETECTOR
Vref
V6min
V6A
V6E
V6MAX
V2B
VST
VR
VV
1
2
3
4
5
6
7
8
9

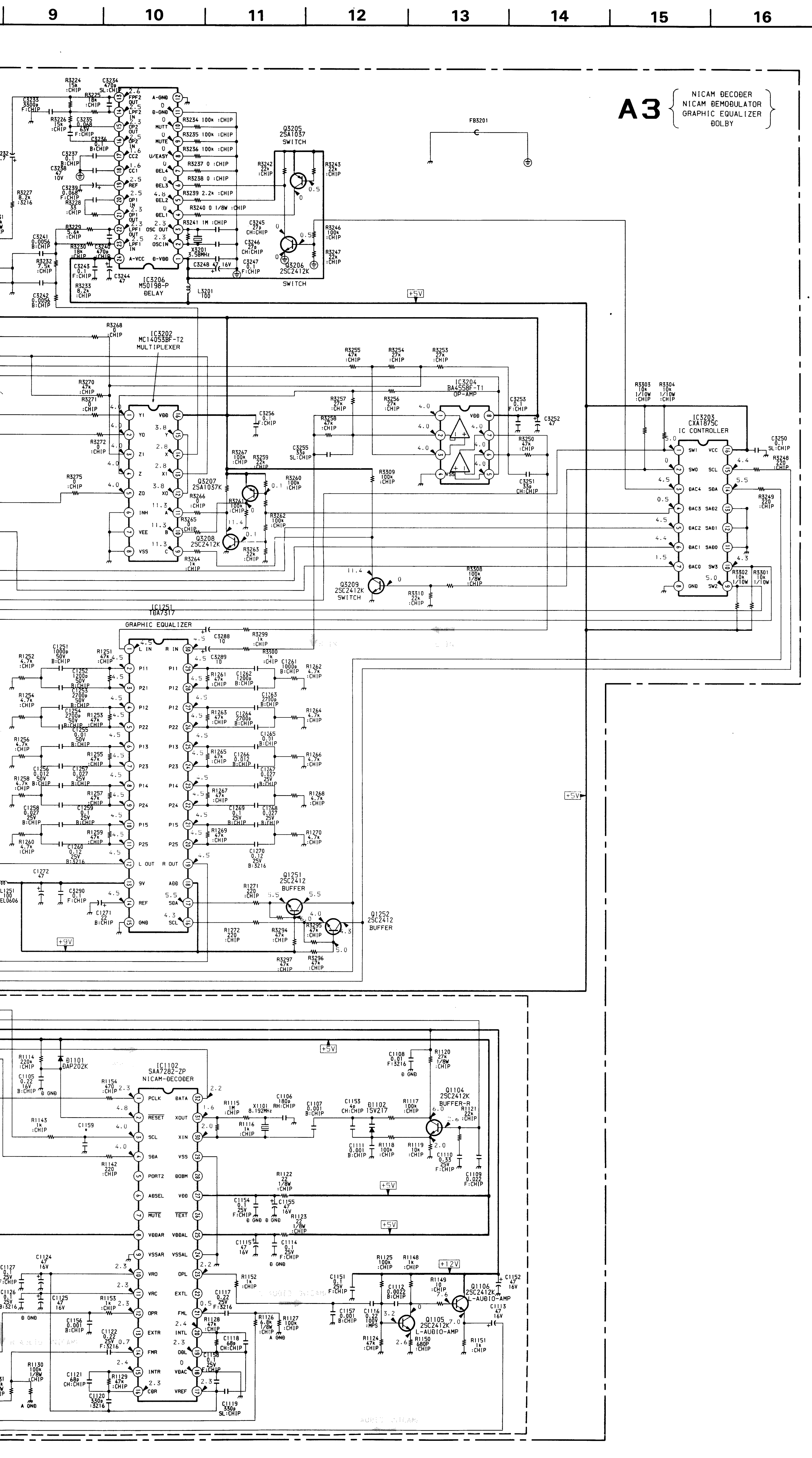
IC	
IC601	A – 1
IC602	C – 1
IC603	B – 1
IC801	E – 3
IC803	F – 3
IC1501	E – 8

TRANSISTOR	
Q601	A – 3
Q602	F – 1
Q603	E – 1
Q604	A – 2
Q605	E – 2
Q606	B – 2
Q611	F – 1
Q612	F – 1
Q613	B – 1
Q801	D – 5
Q802	E – 3
Q806	D – 3
Q807	E – 4
Q813	E – 3
Q1501	F – 8
Q1502	F – 8
Q1503	F – 8
Q1504	F – 7

DIODE	
D601	A – 2
D602	B – 1
D604	B – 2
D605	E – 2
D606	B – 2
D607	A – 2
D608	A – 3
D610	C – 2
D611	D – 2
D612	C – 2
D613	B – 2
D614	B – 2
D616	B – 1
D619	F – 1
D620	F – 2
D621	C – 1
D624	E – 2
D801	B – 6
D802	B – 7
D803	F – 4
D809	E – 3
D811	D – 3
D812	C – 9
D813	B – 9
D814	E – 7
D815	B – 6
D816	A – 7
D822	E – 3
D824	E – 5
D825	F – 4
D826	C – 7
D828	E – 3
D1501	F – 8
D1503	F – 8
D1504	F – 7

VARIABLE RESISTOR	
RV601	E – 1

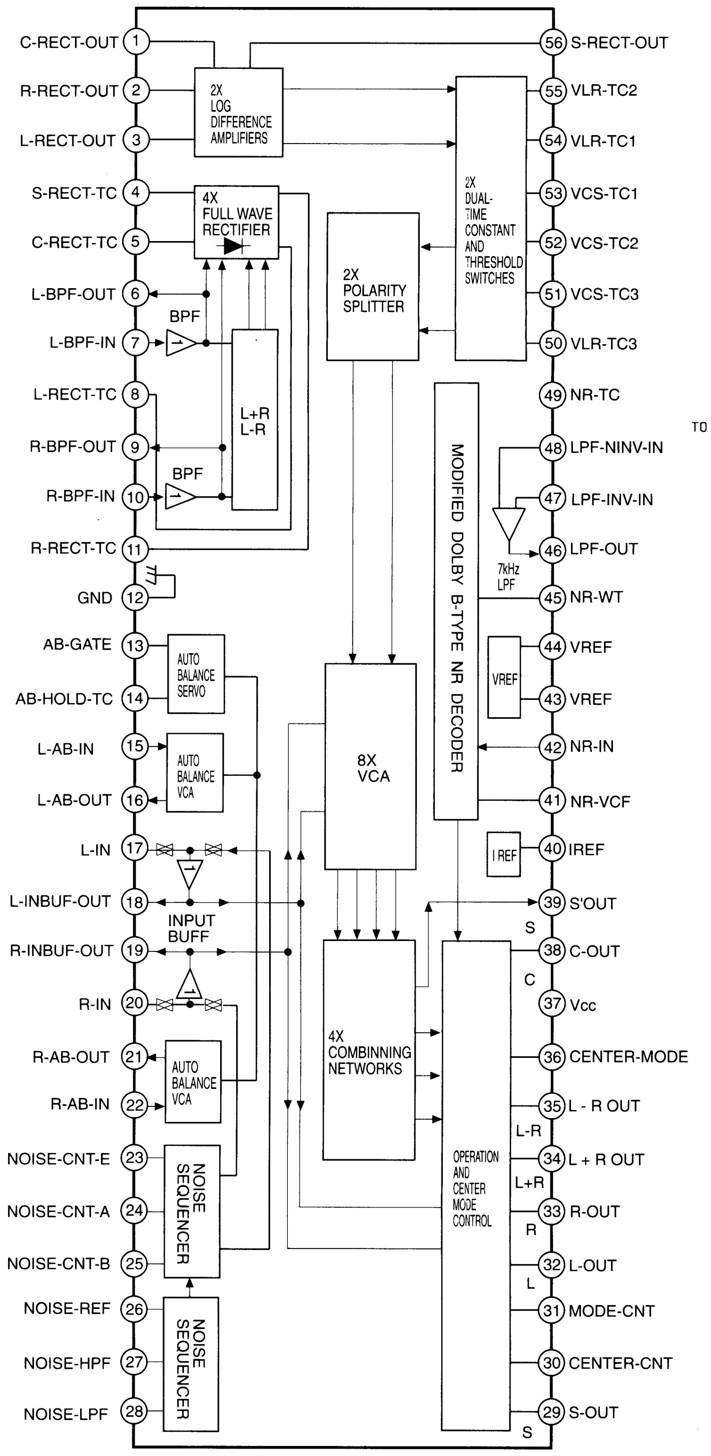

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
B-:SSAE2B<A/4>-A3.
IC3201
M69032P
DOLBY PRO LOGIC
CN0227
6P
WHT
:S-MICRO
L OUT
R OUT
GND
GND
L IN
R IN
TO A BOARD
CN0127
LFIN
VREF
L IN
S OUT
C OUT
+12V
L-ROUT
R IN
L+R OUT
R OUT
L OUT
S OUT
+12V
IC3206
M50198-P
DELAY
A-VCC
B-VDD
OSC OUT
OSCIN
X3201
3.58MHz
IC3202
MC14053BF-T2
MULTIPLEXER
Q3203
2SA1037K
SWITCH
Q3207
2SA1037K
Q3208
2SC2412K
CN0248
3P
:S-MICRO
GND
SDA 2
SCL
TO M2 BOARD
CN1435
IC3205
TDA6622-5
AUDIO PROCESSOR
BIAS
S IN
PILOT
FIL
MONO
C IN
L OUT
R OUT
RTREB
LTREB
LBASS
RBASS
OSC
SDA
SCL
HP
BW
GND
IC1251
TDA7317
GRAPHIC EQUALIZER
L IN
R IN
L OUT
R OUT
ADD
SDA
SCL
REF
GND
9V
CN0246
3P
WHT
:S-MICRO
C OUT
GND
S OUT
TO K1 BOARD
CN1346
SURROUND
OUT
CENTER
OUT
D3201
MTZJ-T-77-9.1C
+12V
+9V
L1251
100
:EL0606
R OUT
GND
GND
R IN
GND
GND
SCL
SIF
GND
GND
+12V
+5V
GND
GND
SDA
L IN
GND
GND
L OUT
GND
TO A BOARD
CN0101
CN0201
20P
WHT
BTOB-P
FB1101
FB1102
FB1103
FB1104
FB1105
A GND
D GND
DIG 5V
Q1101
2SC2412K
SIF-AMP
Q1102
2SC2412K
SIF-AMP
Q1103
2SC2412K
SIF-AMP
CF1101
CF1102
JR1101
L1105
BP1101
BPF
+5V
IC1101
TDA8732
NICAM
DEMODULATOR
ANA 5V
X1102
D1103
1SV214
IC1102
SAA7282-ZP
NICAM-DECODER
D1101
DAP202K
X1101
8.192MHz
Q1108
2SC2412K
R-AUDIO-AMP
Q1107
2SC2412K
R-AUDIO-AMP
MOUNTED FOR NICAM
MODELS ONLY


9
10
11
12
13
14
15
16
17
A3
NICAM DECODER
NICAM DEMODULATOR
GRAPHIC EQUALIZER
DOLBY
FB3201
Q3205
2SA1037
SWITCH
Q3206
2SC2412K
SWITCH
IC3206
M50198-P
DELAY
X3201
3.58MHz
L3201
100
+5V
IC3202
MC14053BF-T2
MULTIPLEXER
IC3204
BA4558F-T1
OP-AMP
IC3203
CXA1875C
IC CONTROLLER
Q3207
2SA1037K
Q3208
2SC2412K
Q3209
2SC2412K
SWITCH
IC1251
TDA7317
GRAPHIC EQUALIZER
Q1251
2SC2412
BUFFER
Q1252
2SC2412
BUFFER
+9V
+5V
D1101
DAP202K
IC1102
SAA7282-ZP
NICAM-DECODER
X1101
8.192MHz
D1102
1SV217
Q1104
2SC2412K
BUFFER-R
Q1105
2SC2412K
L-AUDIO-AMP
Q1106
2SC2412K
L-AUDIO-AMP
+12V

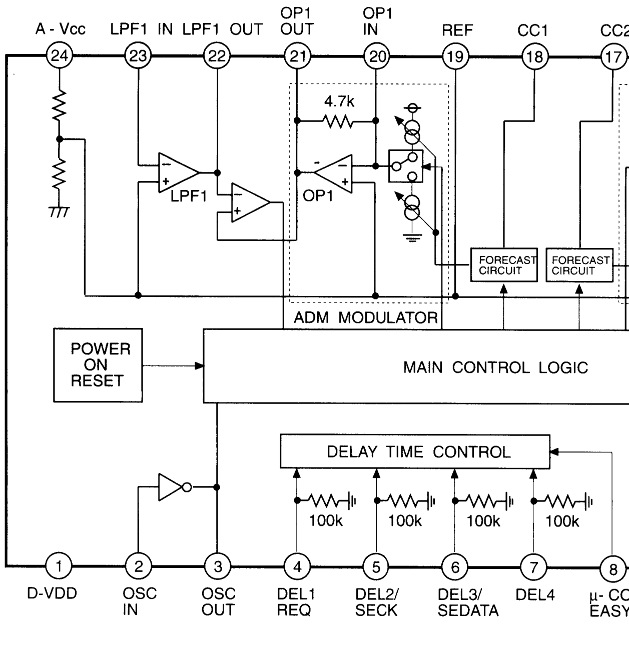
A3 BOARD * MARK

Model	KV-A2943E	KV-A2942U
BP1101	5.850MHz	6.552MHz
C1159	-	47P
CF1101	-	6.0MHz
CF1102	5.5MHz	-
JR1101	0 : CHIP	-
L1105	-	15MMh
X1102	11.700MHz	13.104MHz

A3 BOARD IC3201 M69032P


C-RECT-OUT 1
R-RECT-OUT 2
L-RECT-OUT 3
S-RECT-TC 4
C-RECT-TC 5
L-BPF-OUT 6
L-BPF-IN 7
L-RECT-TC 8
R-BPF-OUT 9
R-BPF-IN 10
R-RECT-TC 11
GND 12
AB-GATE 13
AB-HOLD-TC 14
L-AB-IN 15
L-AB-OUT 16
L-IN 17
L-INBUF-OUT 18
R-INBUF-OUT 19
R-IN 20
R-AB-OUT 21
R-AB-IN 22
NOISE-CNT-E 23
NOISE-CNT-A 24
NOISE-CNT-B 25
NOISE-REF 26
NOISE-HPF 27
NOISE-LPF 28
56 S-RECT-OUT
55 VLR-TC2
54 VLR-TC1
53 VCS-TC1
52 VCS-TC2
51 VCS-TC3
50 VLR-TC3
49 NR-TC
48 LPF-NINV-IN
47 LPF-INV-IN
46 LPF-OUT
45 NR-WT
44 VREF
43 VREF
42 NR-IN
41 NR-VCF
40 IREF
39 S'OUT
38 C-OUT
37 Vcc
36 CENTER-MODE
35 L - R OUT
34 L + R OUT
33 R-OUT
32 L-OUT
31 MODE-CNT
30 CENTER-CNT
29 S-OUT
2X LOG DIFFERENCE AMPLIFIERS
4X FULL WAVE RECTIFIER
BPF
BPF
L+R
L-R
2X POLARITY SPLITTER
2X DUAL-TIME CONSTANT AND THRESHOLD SWITCHES
MODIFIED DOLBY B-TYPE NR DECODER
7kHz LPF
VREF
IREF
AUTO BALANCE SERVO
AUTO BALANCE VCA
8X VCA
INPUT BUFF
4X COMBINNING NETWORKS
AUTO BALANCE VCA
NOISE SEQUENCER
NOISE SEQUENCER
OPERATION AND CENTER MODE CONTROL
S
C
L-R
L+R
R
L
S
TO

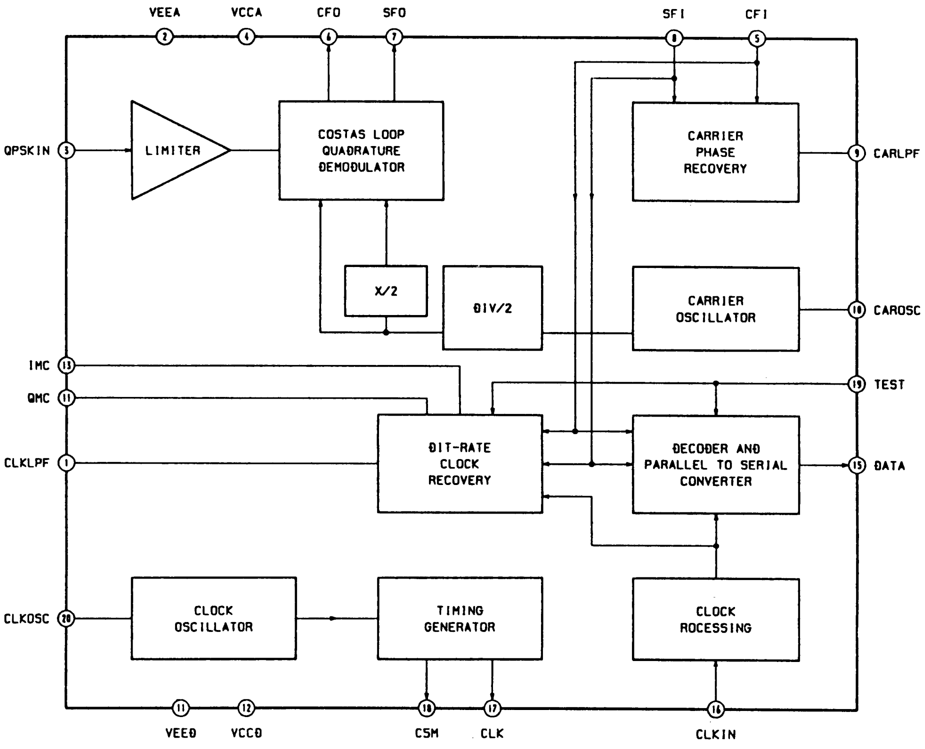
A3 BOARD IC3206 M50198P

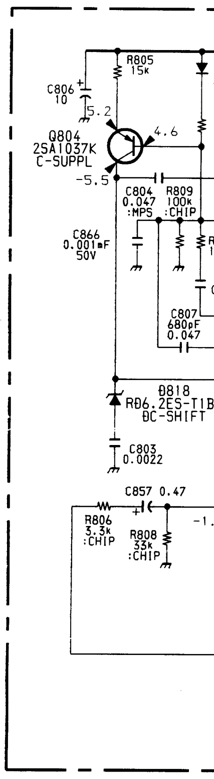

A - Vcc 24
LPF1 IN 23
LPF1 OUT 22
OP1 OUT 21
OP1 IN 20
REF 19
CC1 18
CC2 17
4.7k
LPF1
OP1
FORECAST CIRCUIT
FORECAST CIRCUIT
ADM MODULATOR
POWER ON RESET
MAIN CONTROL LOGIC
DELAY TIME CONTROL
100k
100k
100k
100k
1 D-VDD
2 OSC IN
3 OSC OUT
4 DEL1 REQ
5 DEL2/ SECK
6 DEL3/ SEDATA
7 DEL4
8 μ-CO EASY

A3 BOARD * MARK

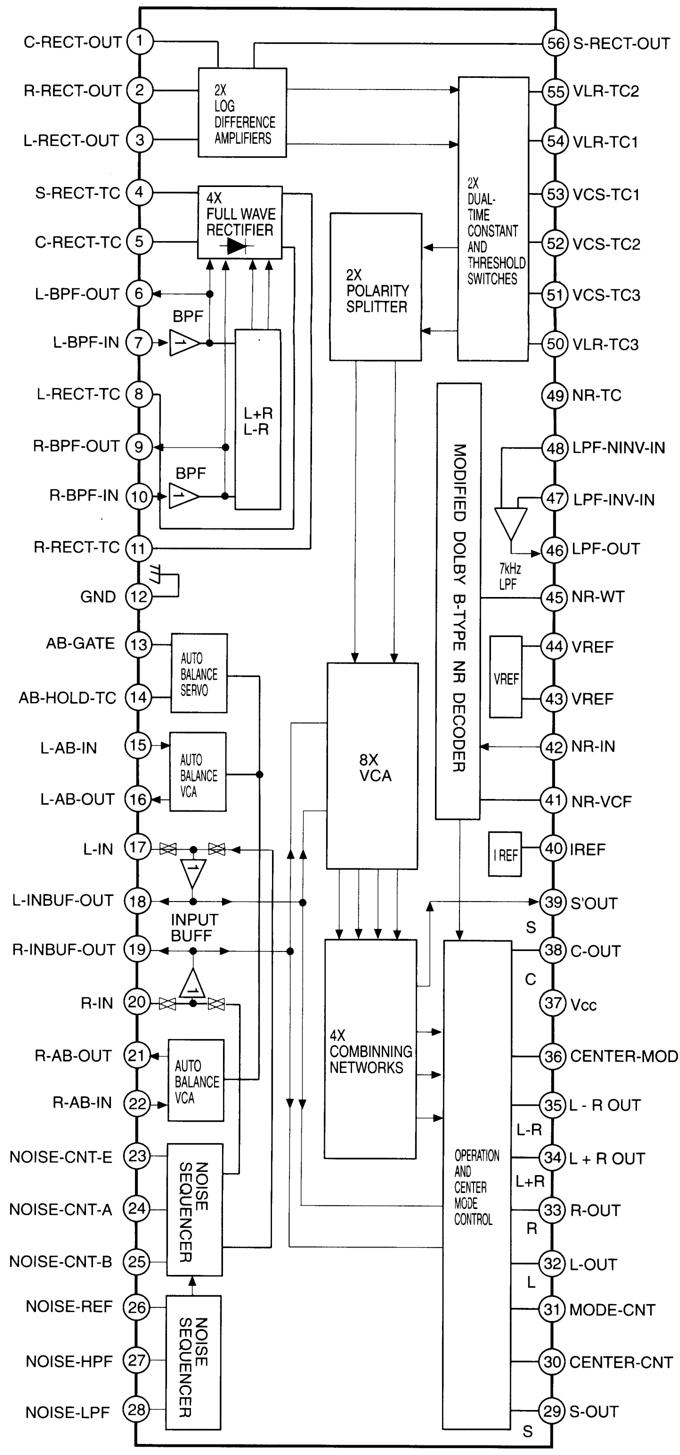
Model	KV-A2943E	KV-A2942U
BP1101	5.850MHz	6.552MHz
C1159	-	47P
CF1101	-	6.0MHz
CF1102	5.5MHz	-
JR1101	0 : CHIP	-
L1105	-	15MMh
X1102	11.700MHz	13.104MHz

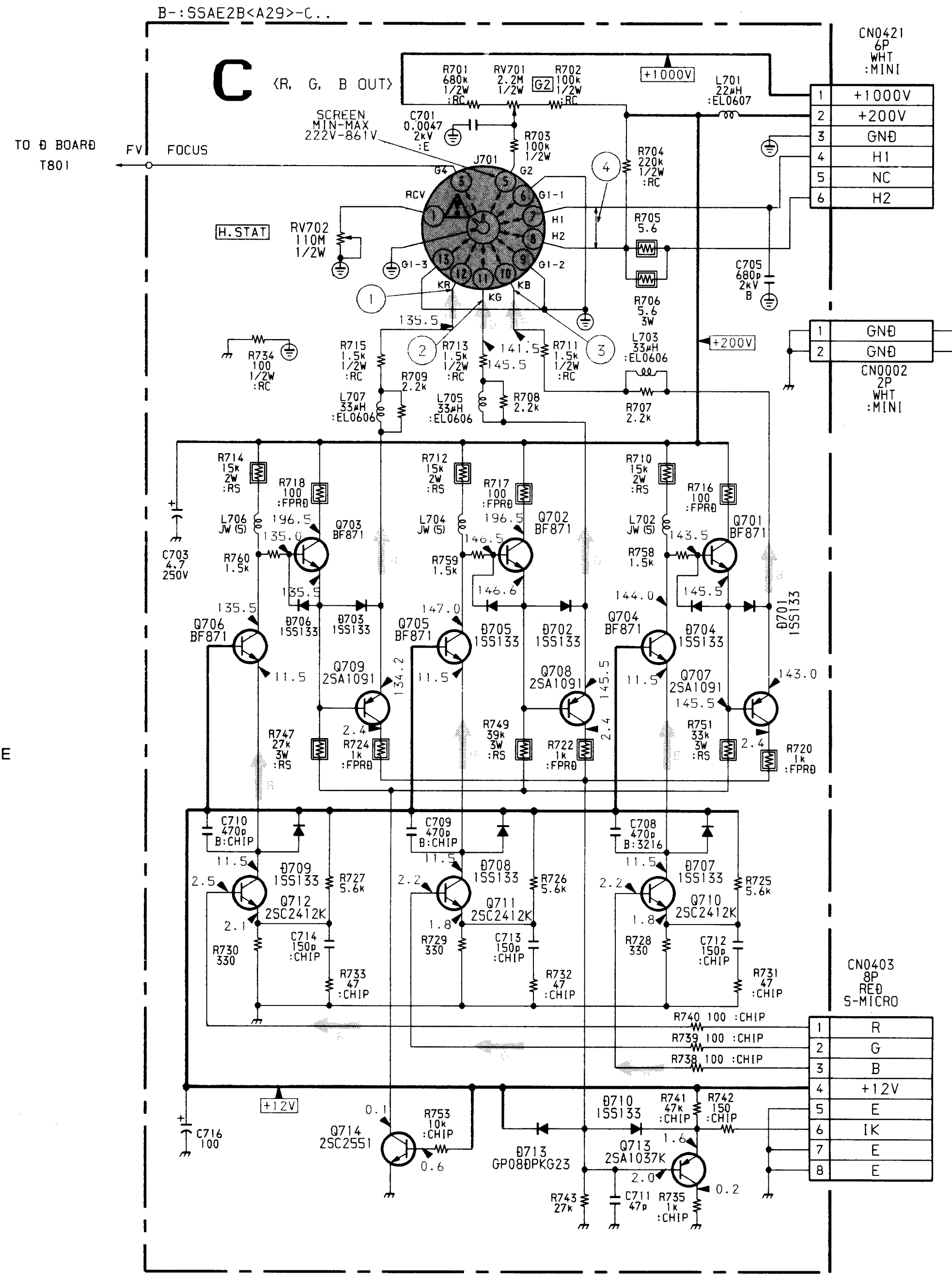
A3 BOARD IC1101 TDA8732

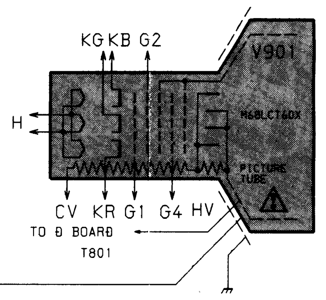

VEEA
VCCA
CFO
SFO
SFI
CFI
QPSKIN
LIMITER
COSTAS LOOP QUADRATURE DEMODULATOR
CARRIER PHASE RECOVERY
CARLPF
X/2
DIV/2
CARRIER OSCILLATOR
CAROSC
IMC
QMC
TEST
CLKLPF
BIT-RATE CLOCK RECOVERY
DECODER AND PARALLEL TO SERIAL CONVERTER
DATA
CLKOSC
CLOCK OSCILLATOR
TIMING GENERATOR
CLOCK ROCESSING
VEED
VCCD
CSM
CLK
CLKIN


R805 15k
C806 10
Q804 2SA1037K C-SUPPL
C804 0.047 :MPS
R809 100k :CHIP
C866 0.001uF 50V
C807 680pF 0.047
D818 RD6.2ES-T1B BC-SHIFT
C803 0.0022
C857 0.47
R806 3.3k :CHIP
R808 33k :CHIP

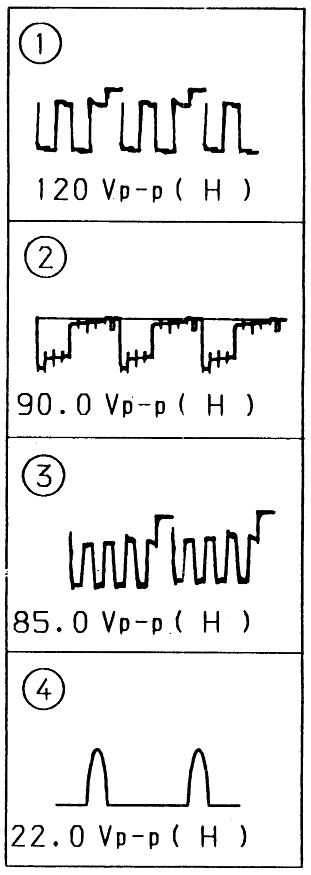
A3 BOARD IC3201 M69032P


C-RECT-OUT 1
R-RECT-OUT 2
L-RECT-OUT 3
S-RECT-TC 4
C-RECT-TC 5
L-BPF-OUT 6
L-BPF-IN 7
L-RECT-TC 8
R-BPF-OUT 9
R-BPF-IN 10
R-RECT-TC 11
GND 12
AB-GATE 13
AB-HOLD-TC 14
L-AB-IN 15
L-AB-OUT 16
L-IN 17
L-INBUF-OUT 18
R-INBUF-OUT 19
R-IN 20
R-AB-OUT 21
R-AB-IN 22
NOISE-CNT-E 23
NOISE-CNT-A 24
NOISE-CNT-B 25
NOISE-REF 26
NOISE-HPF 27
NOISE-LPF 28
56 S-RECT-OUT
55 VLR-TC2
54 VLR-TC1
53 VCS-TC1
52 VCS-TC2
51 VCS-TC3
50 VLR-TC3
49 NR-TC
48 LPF-NINV-IN
47 LPF-INV-IN
46 LPF-OUT
45 NR-WT
44 VREF
43 VREF
42 NR-IN
41 NR-VCF
40 IREF
39 S'OUT
38 C-OUT
37 Vcc
36 CENTER-MODE
35 L - R OUT
34 L + R OUT
33 R-OUT
32 L-OUT
31 MODE-CNT
30 CENTER-CNT
29 S-OUT
2X LOG DIFFERENCE AMPLIFIERS
4X FULL WAVE RECTIFIER
BPF
L+R L-R
2X POLARITY SPLITTER
2X DUAL-TIME CONSTANT AND THRESHOLD SWITCHES
MODIFIED DOLBY B-TYPE NR DECODER
7kHz LPF
VREF
IREF
AUTO BALANCE SERVO
AUTO BALANCE VCA
8X VCA
INPUT BUFF
4X COMBINNING NETWORKS
OPERATION AND CENTER MODE CONTROL
NOISE SEQUENCER
S
C
L-R
L+R
R
L


B-:SSAE2B<A29>-C..
C (R, G, B OUT)
TO D BOARD T801
FV FOCUS
SCREEN MIN-MAX 222V-861V
H.STAT
RV702 110M 1/2W
J701
+1000V
L701 22uH :EL0607
CN0421 6P WHT :MINI
+1000V
+200V
GND
H1
NC
H2
TO D BOARD CN0521
GND
GND
CN0002 2P WHT :MINI
+200V
Q703 BF871
Q702 BF871
Q701 BF871
Q706 BF871
Q705 BF871
Q704 BF871
Q709 2SA1091
Q708 2SA1091
Q707 2SA1091
Q712 2SC2412K
Q711 2SC2412K
Q710 2SC2412K
D701 1SS133
CN0403 8P RED S-MICRO
R
G
B
+12V
E
IK
E
E
TO A BOARD CN0103
+12V
Q714 2SC2551
D713 GP08DPKG23
D710 1SS133
Q713 2SA1037K
C716 100
C703 4.7 250V

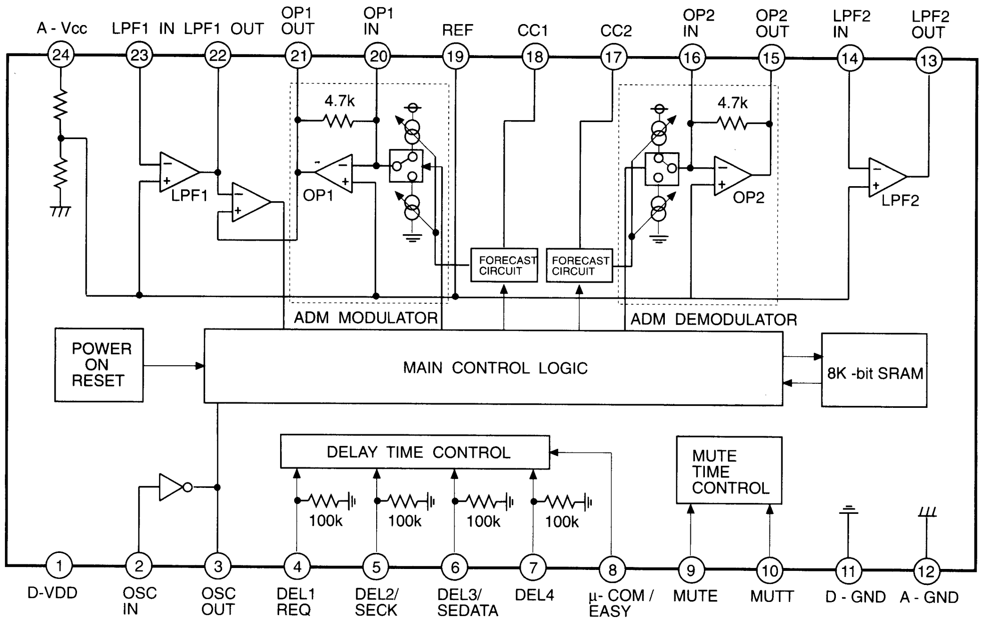

KG KB G2
V901
M68LCT60X
PICTURE TUBE
H
CV KR G1 G4 HV
TO D BOARD T801

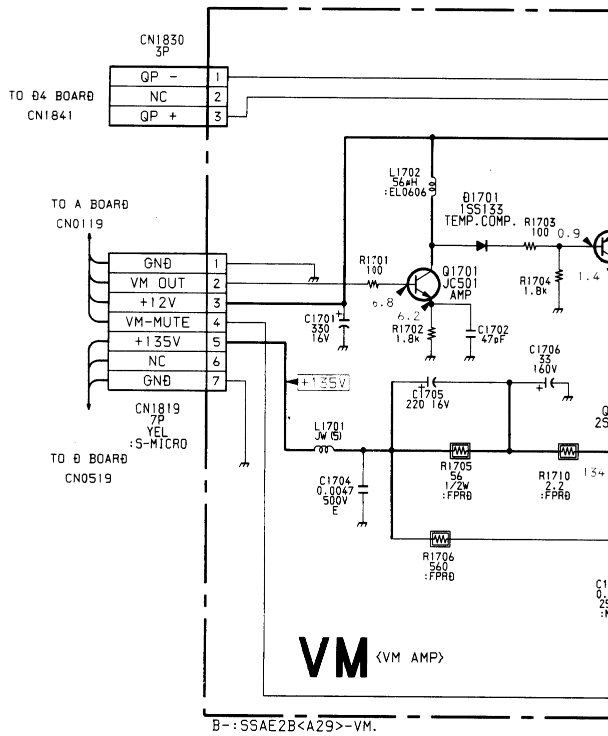
WAVEFORMS C BOARD



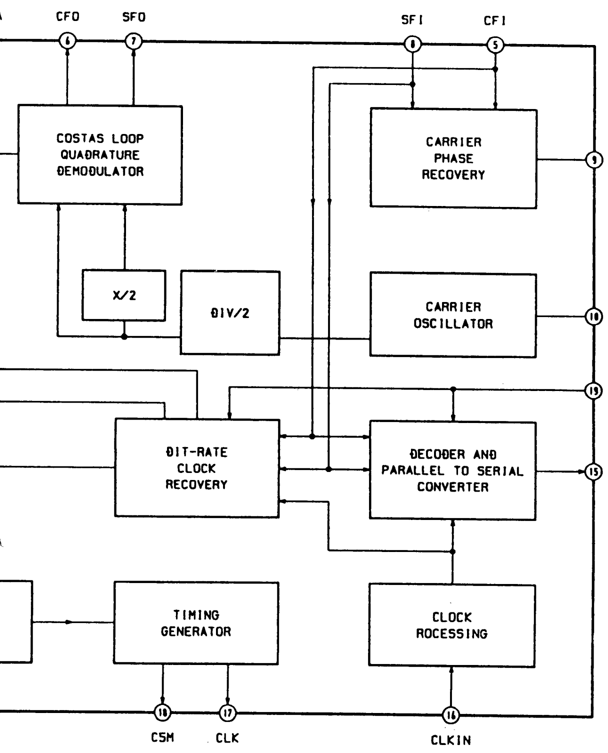
TO A BOARD CN0149
TO A3 BOARD CN0246

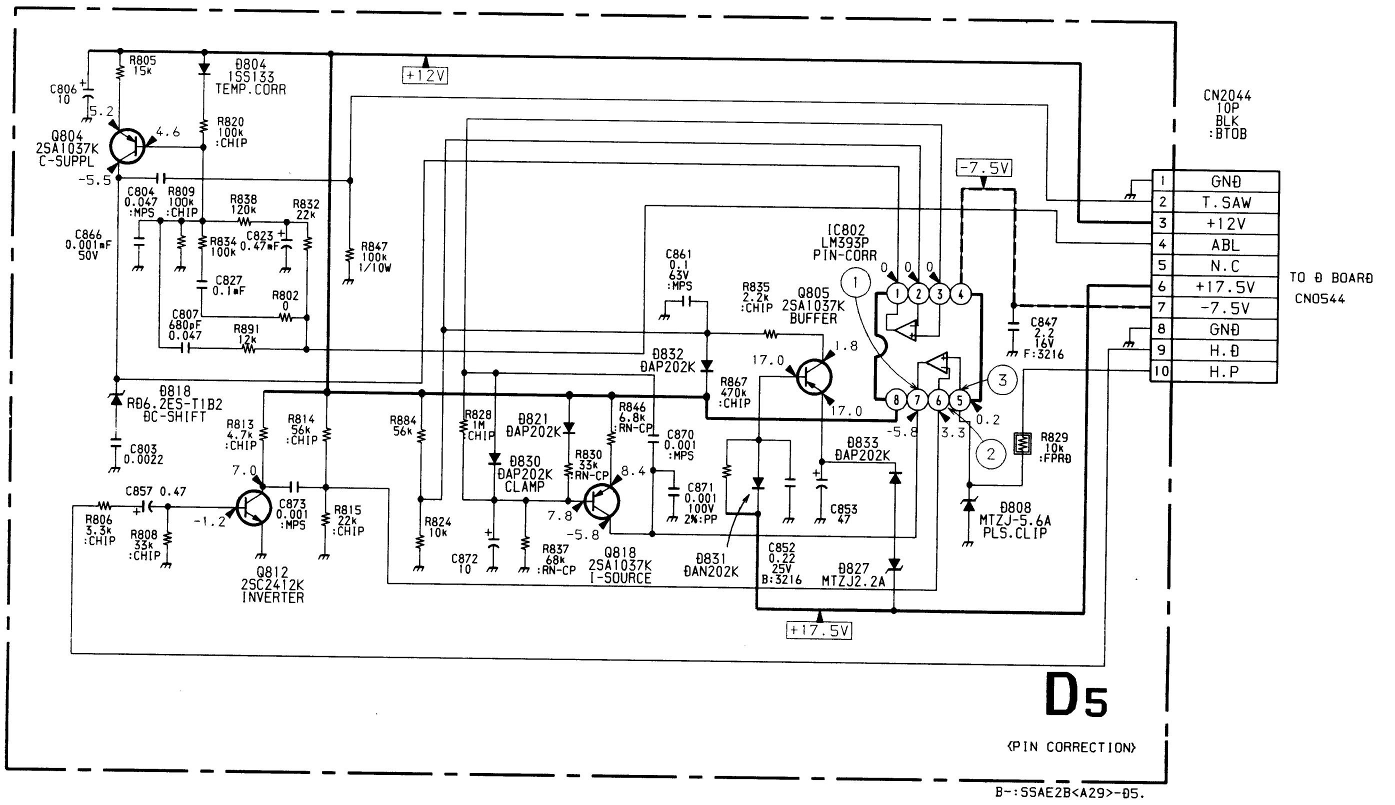
A3 BOARD IC3206 M50198P


A - Vcc 24
LPF1 IN 23
LPF1 OUT 22
OP1 OUT 21
OP1 IN 20
REF 19
CC1 18
CC2 17
OP2 IN 16
OP2 OUT 15
LPF2 IN 14
LPF2 OUT 13
4.7k
LPF1
OP1
OP2
LPF2
FORECAST CIRCUIT
ADM MODULATOR
ADM DEMODULATOR
POWER ON RESET
MAIN CONTROL LOGIC
8K -bit SRAM
DELAY TIME CONTROL
MUTE TIME CONTROL
100k
1 D-VDD
2 OSC IN
3 OSC OUT
4 DEL1 REQ
5 DEL2/ SECK
6 DEL3/ SEDATA
7 DEL4
8 µ- COM / EASY
9 MUTE
10 MUTT
11 D - GND
12 A - GND

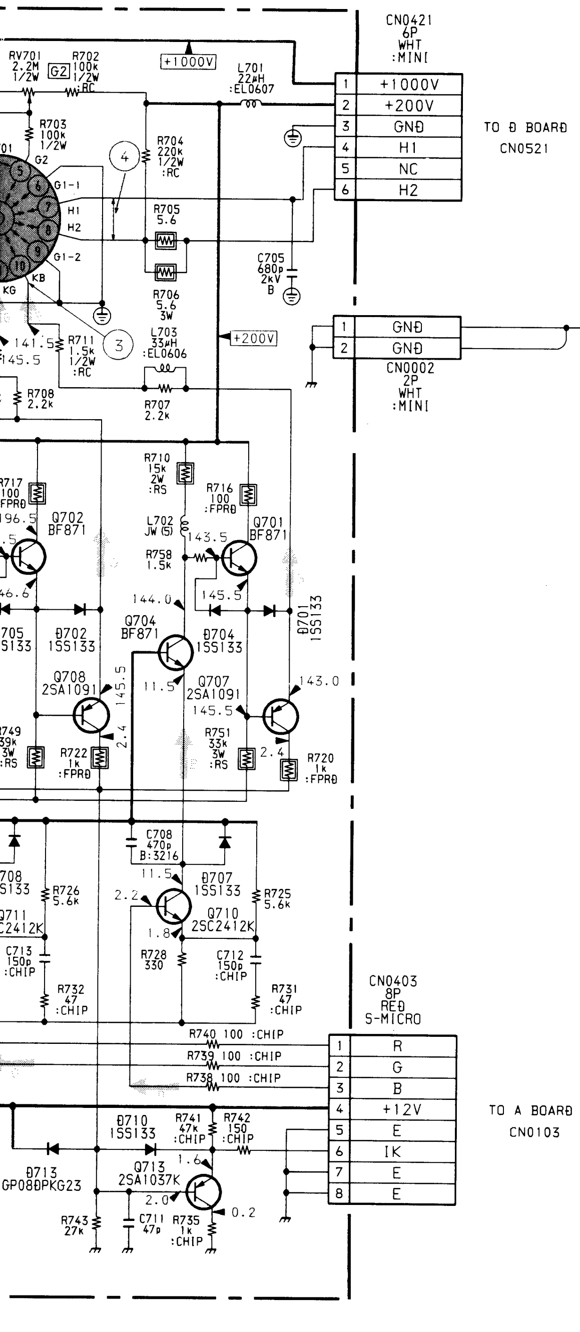

CN1830 3P
QP -
NC
QP +
TO D4 BOARD CN1841
TO A BOARD CN0119
GND
VM OUT
+12V
VM-MUTE
+135V
NC
GND
CN1819 7P YEL :S-MICRO
TO D BOARD CN0519
L1702 56uH :EL0606
D1701 1SS133 TEMP.COMP.
Q1701 JC501 AMP
+135V
VM (VM AMP)
B-:SSAE2B<A29>-VM.

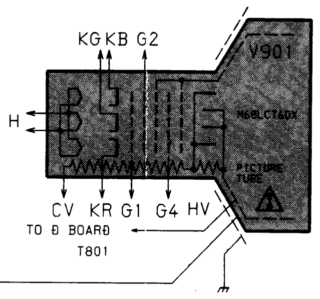
101 TDA8732


CFO
SFO
SFI
CFI
COSTAS LOOP QUADRATURE DEMODULATOR
CARRIER PHASE RECOVERY
CARLPF
X/2
DIV/2
CARRIER OSCILLATOR
CAROSC
TEST
BIT-RATE CLOCK RECOVERY
DECODER AND PARALLEL TO SERIAL CONVERTER
DATA
TIMING GENERATOR
CLOCK ROCESSING
CSM
CLK
CLKIN

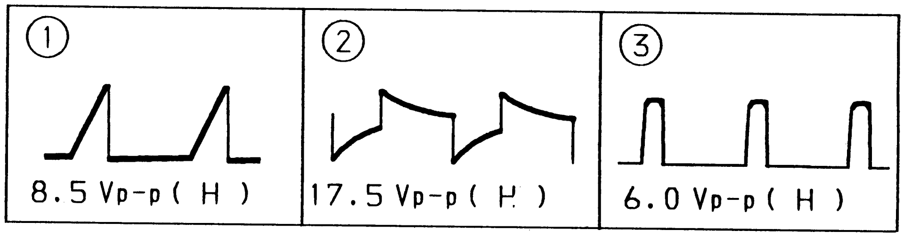

CN2044
10P
BLK
:BTOB
GND
T.SAW
+12V
ABL
N.C
+17.5V
-7.5V
GND
H.D
H.P
TO D BOARD
CN0544
+12V
-7.5V
+17.5V
IC802
LM393P
PIN-CORR
Q805
2SA1037K
BUFFER
Q804
2SA1037K
C-SUPPL
D804
1SS133
TEMP.CORR
D818
RD6.2ES-T1B2
DC-SHIFT
Q812
2SC2412K
INVERTER
Q818
2SA1037K
I-SOURCE
D830
DAP202K
CLAMP
D808
MTZJ-5.6A
PLS.CLIP
D5
(PIN CORRECTION)

B-:SSAE2B<A29>-D5.


CN0421
6P
WHT
:MINI
+1000V
+200V
GND
H1
NC
H2
TO D BOARD
CN0521
GND
GND
CN0002
2P
WHT
:MINI
+1000V
+200V
Q702
BF871
Q701
BF871
Q704
BF871
Q708
2SA1091
Q707
2SA1091
Q710
2SC2412K
Q713
2SA1037K
D713
GP08DPKG23
CN0403
8P
RED
S-MICRO
R
G
B
+12V
E
IK
E
E
TO A BOARD
CN0103

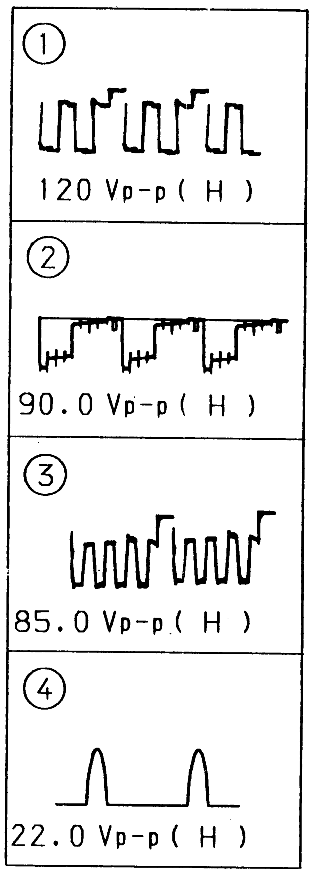

KG KB G2
V901
H
CV KR G1 G4 HV
TO D BOARD
T801

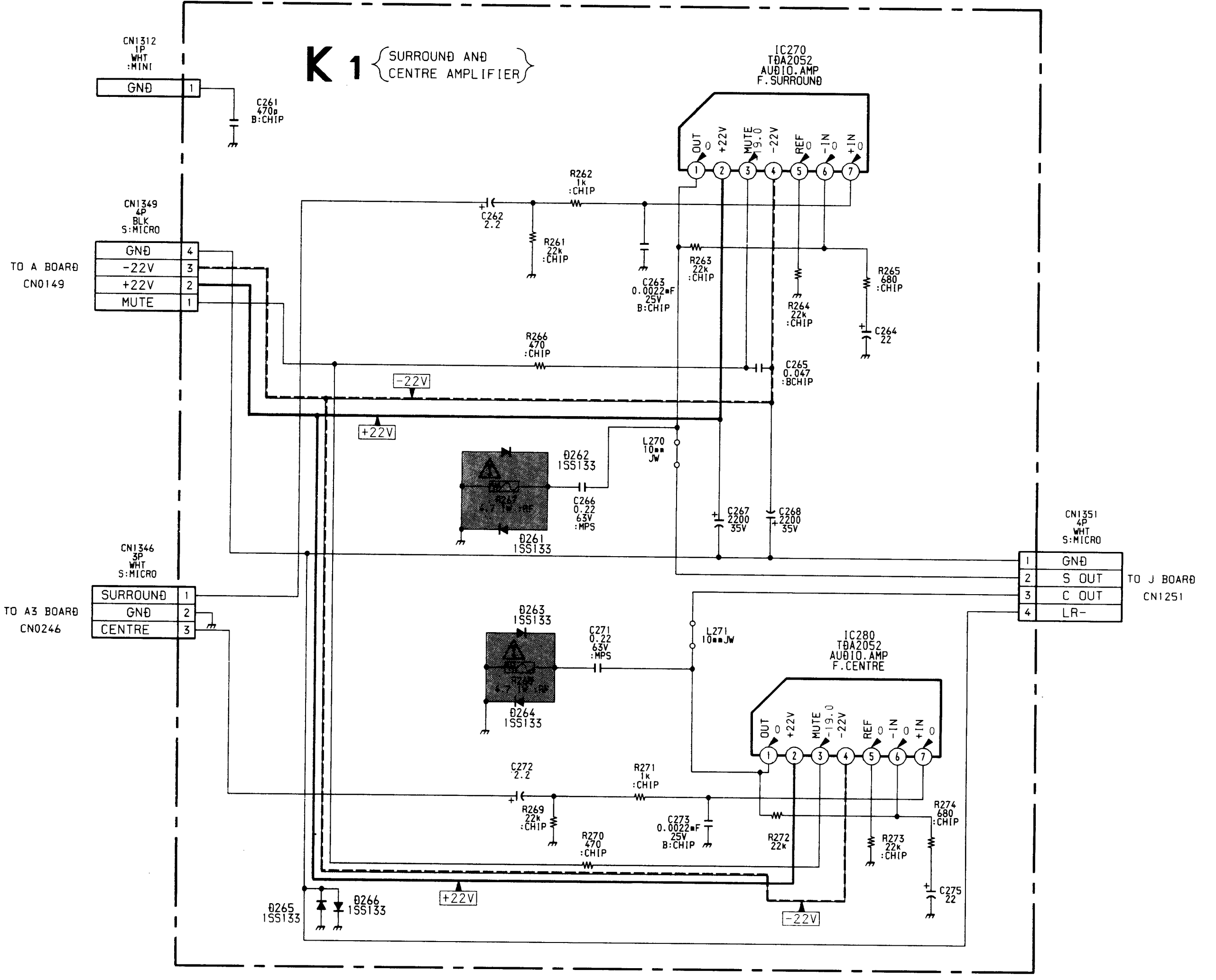
WAVEFORMS D5 BOARD

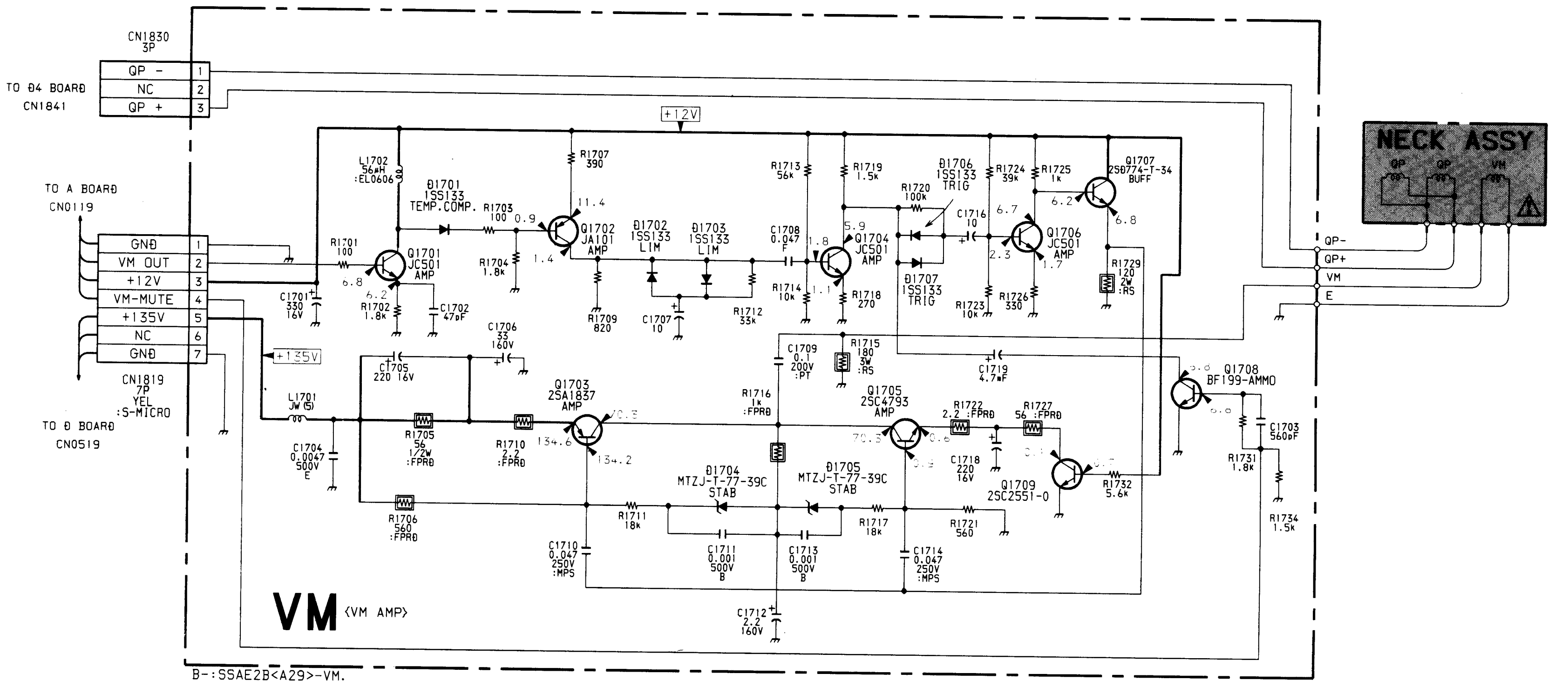

①
8.5 Vp-p (H)
②
17.5 Vp-p (H)
③
6.0 Vp-p (H)

B-:SSAE2B<A/4>-K1.

WAVEFORMS C BOARD


①
120 Vp-p (H)
②
90.0 Vp-p (H)
③
85.0 Vp-p (H)
④
22.0 Vp-p (H)


K1 {SURROUND AND CENTRE AMPLIFIER}
CN1312
1P
WHT
:MINI
GND
IC270
TDA2052
AUDIO.AMP
F.SURROUND
CN1349
4P
BLK
S:MICRO
GND
-22V
+22V
MUTE
TO A BOARD
CN0149
-22V
+22V
D262
1SS133
D261
1SS133
D263
1SS133
D264
1SS133
CN1346
3P
WHT
S:MICRO
SURROUND
GND
CENTRE
TO A3 BOARD
CN0246
IC280
TDA2052
AUDIO.AMP
F.CENTRE
CN1351
4P
WHT
S:MICRO
GND
S OUT
C OUT
LR-
TO J BOARD
CN1251
D265
1SS133
D266
1SS133


CN1830
3P
QP -
NC
QP +
TO D4 BOARD
CN1841
TO A BOARD
CN0119
GND
VM OUT
+12V
VM-MUTE
+135V
NC
GND
CN1819
7P
YEL
:S-MICRO
TO D BOARD
CN0519
+12V
+135V
D1701
1SS133
TEMP.COMP.
Q1701
JC501
AMP
Q1702
JA101
AMP
D1702
1SS133
LIM
D1703
1SS133
LIM
Q1704
JC501
AMP
D1706
1SS133
TRIG
D1707
1SS133
TRIG
Q1706
JC501
AMP
Q1707
2SD774-T-34
BUFF
Q1708
BF199-AMMO
Q1703
2SA1837
AMP
Q1705
2SC4793
AMP
D1704
MTZJ-T-77-39C
STAB
D1705
MTZJ-T-77-39C
STAB
Q1709
2SC2551-0
NECK ASSY
QP-
QP+
VM
E
VM (VM AMP)

B-:SSAE2B<A29>-VM.

A3 [NICAM DECODER
NICAM DEMODULATOR
GRAPHIC EQUALIZER, DOLBY]

K1 [SURROUND AND
CENTRE AMPLIFIER]

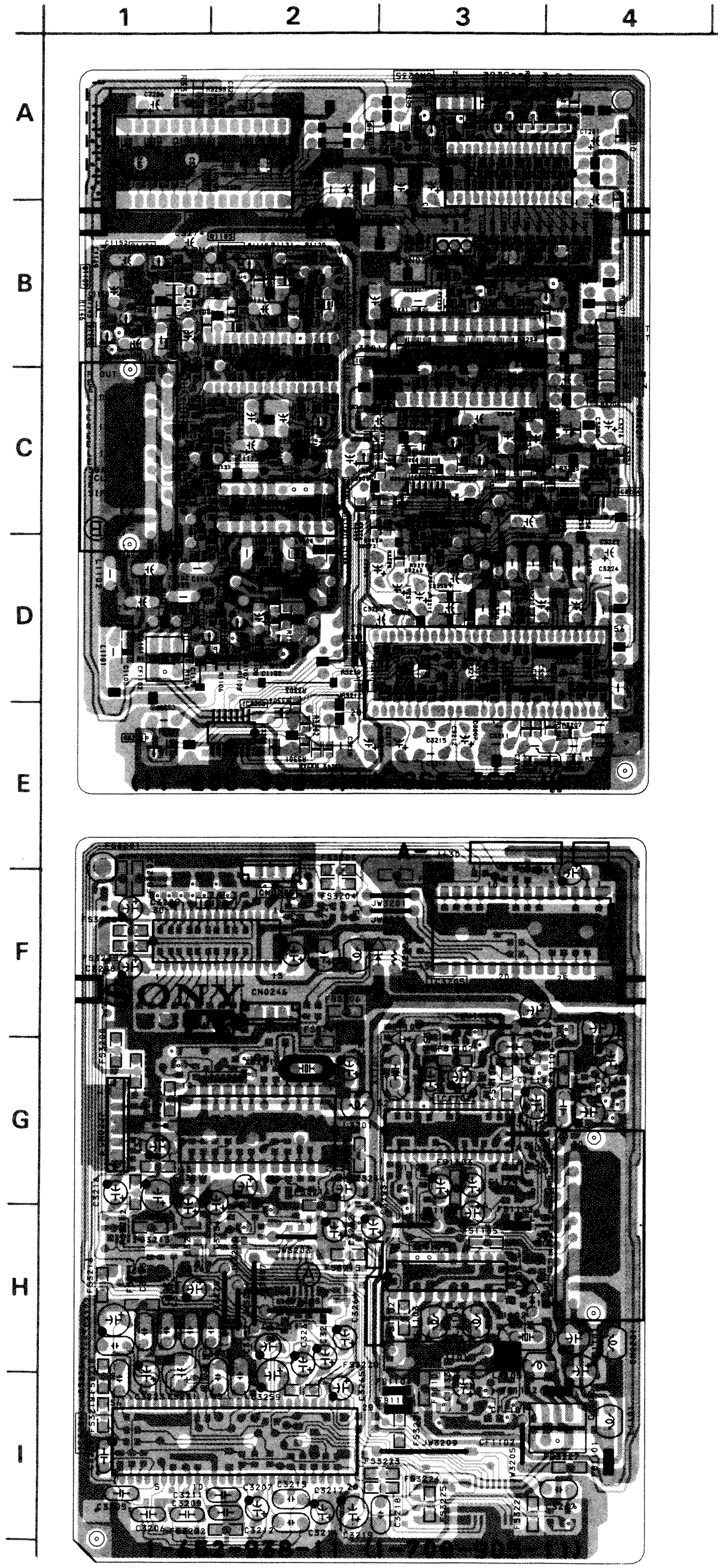
D5 [PIN CORRECTION]

C [R.G.B. OUT]

VM [VM AMP]

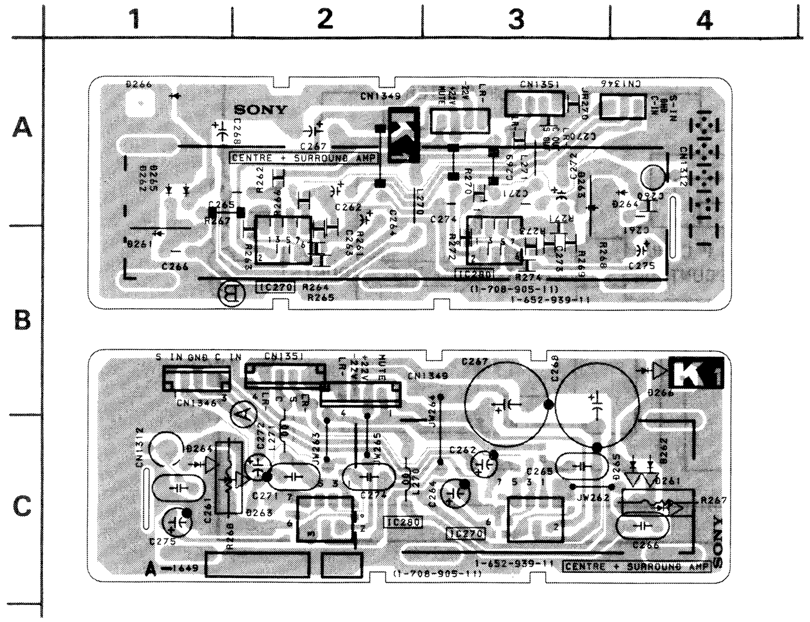
D4 [V - PIN Q P]

– A3 BOARD –



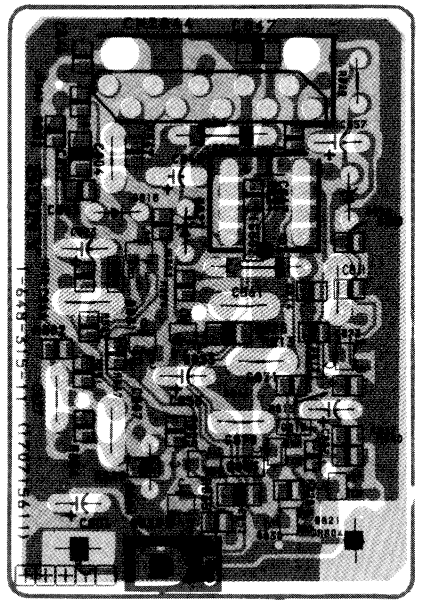
1
2
3
4
A
B
C
D
E
F
G
H
I
SONY

– K1 BOARD –



1
2
3
4
A
B
C
SONY
CENTRE + SURROUND AMP
1-652-939-11
(1-708-905-11)

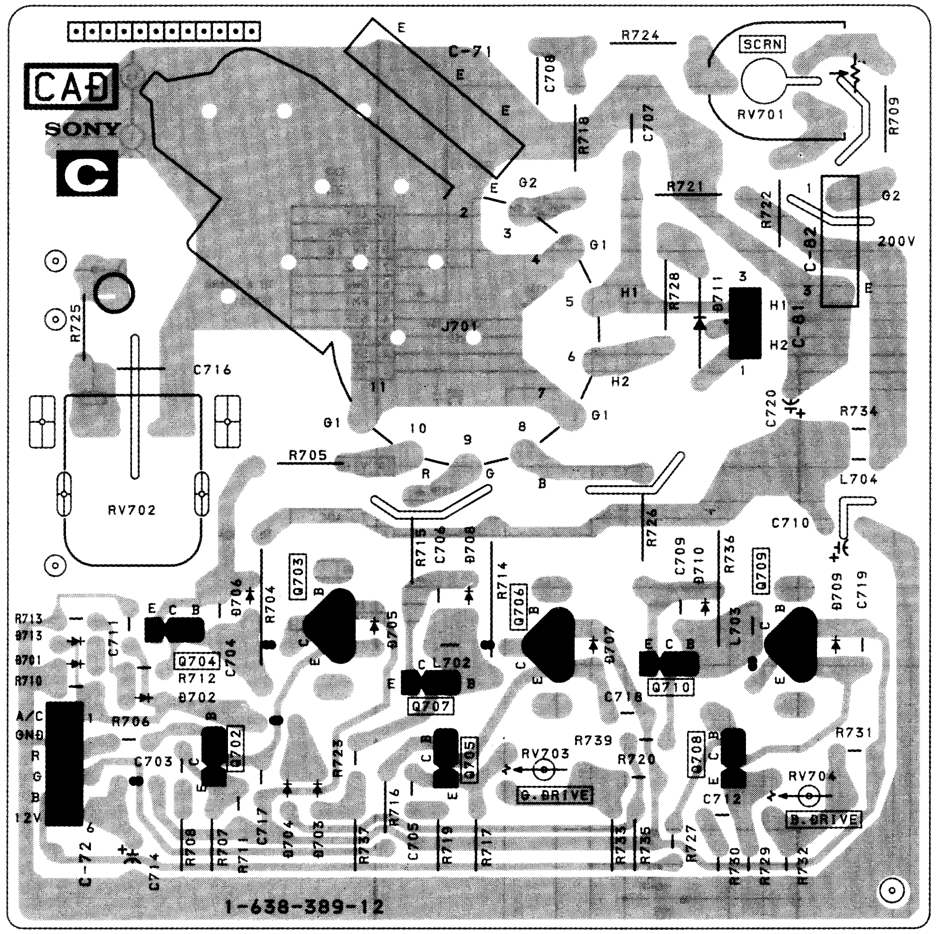
– D5 BOARD –



Note :

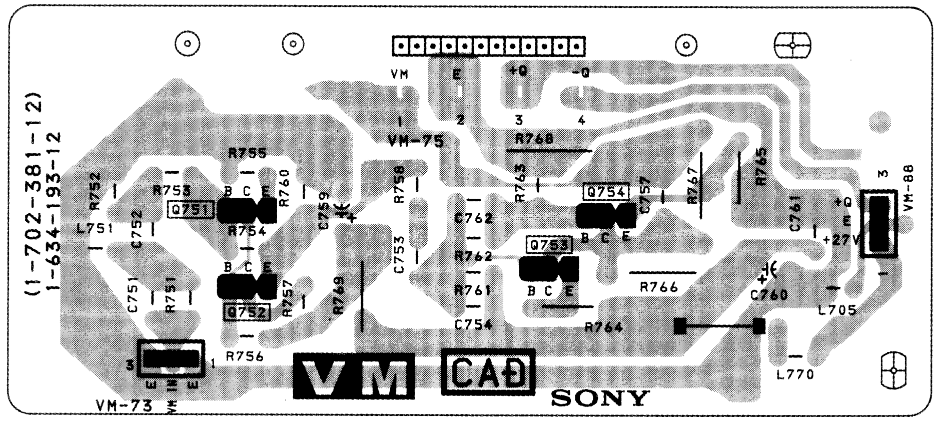
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

– C BOARD –

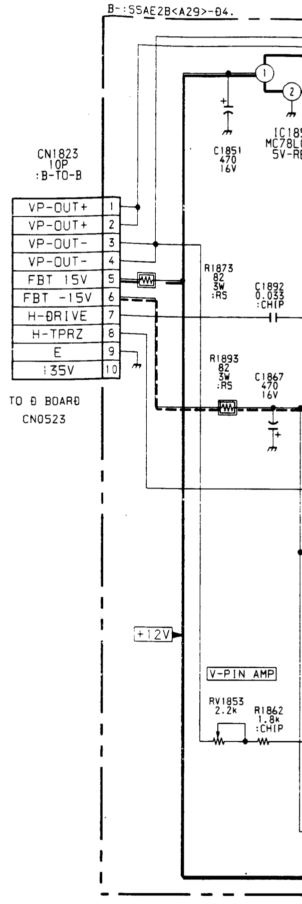


CAD
SONY
C
SCRN
RV701
RV702
RV703
RV704
J701
G.DRIVE
B.DRIVE
200V
A/C
GND
R
G
B
12V
1-638-389-12

– VM BOARD –



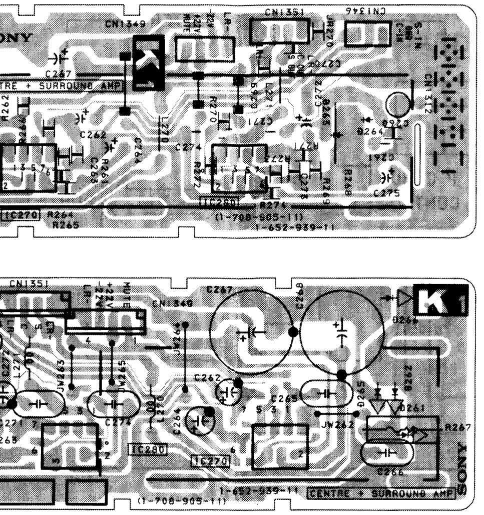
VM
E
+Q
-Q
VM-75
VM-88
VM-73
+27V
(1-702-381-12)
1-634-193-12
VM
CAD
SONY



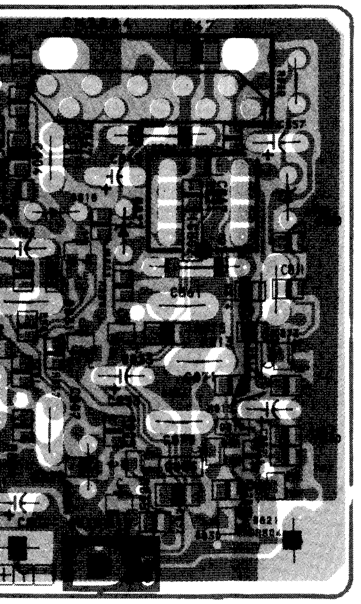
CN1823
10P
:B-TO-B
VP-OUT+
VP-OUT+
VP-OUT-
VP-OUT-
FBT 15V
FBT -15V
H-DRIVE
H-TPRZ
E
135V
TO D BOARD
CN0523
+12V
V-PIN AMP

ORRECTION] **C** [R.G.B. OUT] **VM** [VM AMP] **D4** [V - PIN Q P]

2 3 4

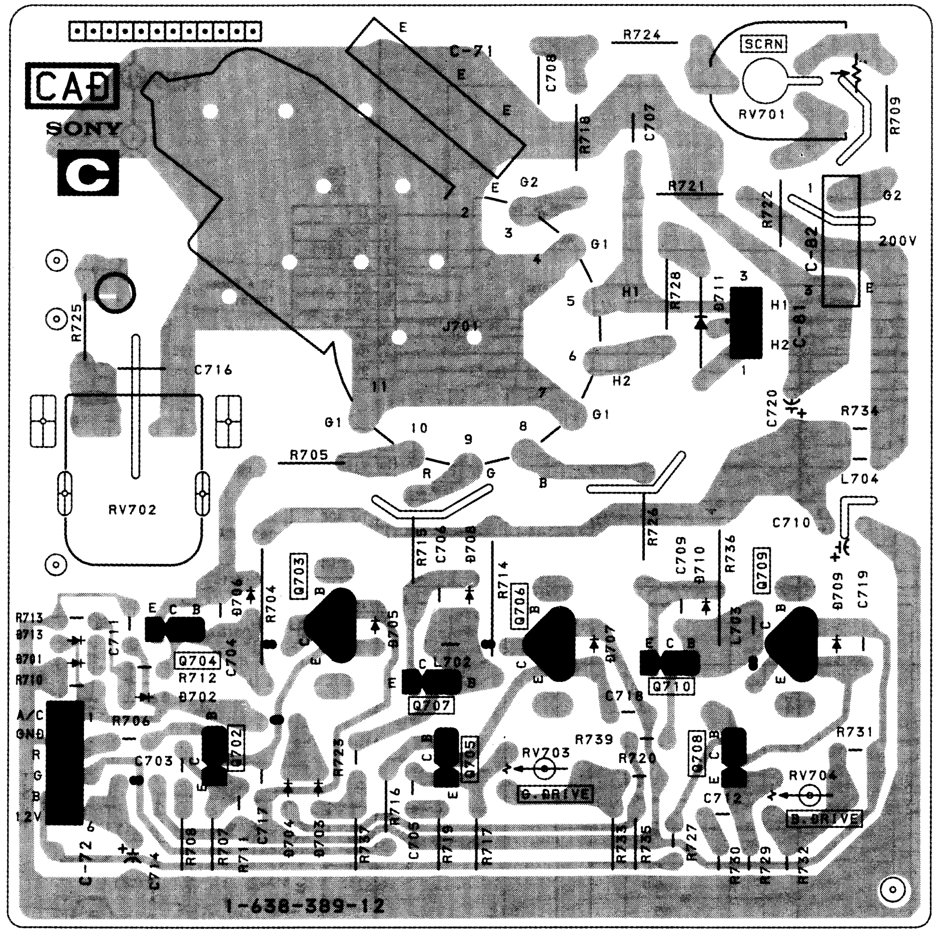

CN1349
CN1351
K
C267
C262
IC270
IC280
1-708-905-11
1-652-939-11
CENTRE + SURROUND AMP
SONY

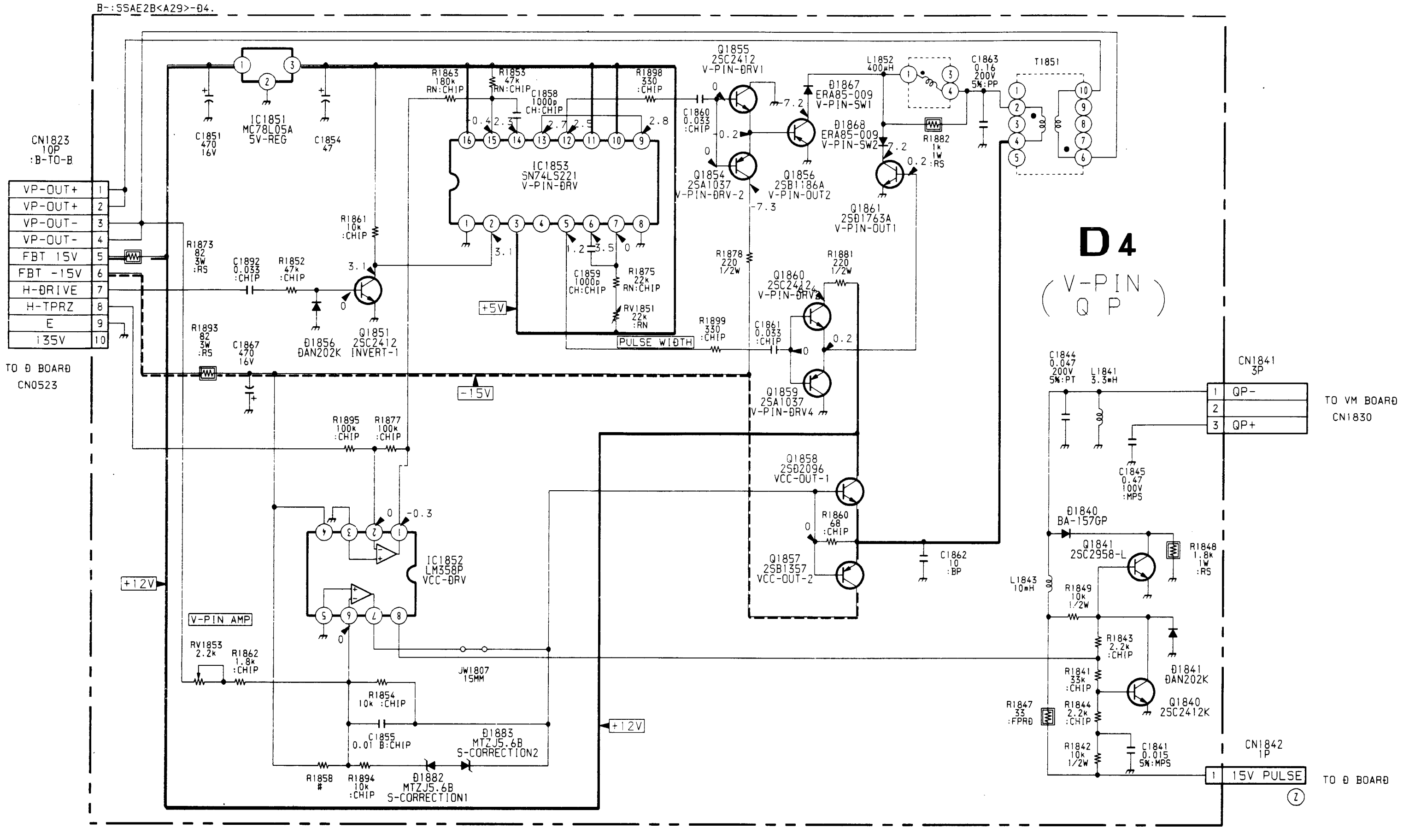
5 BOARD -



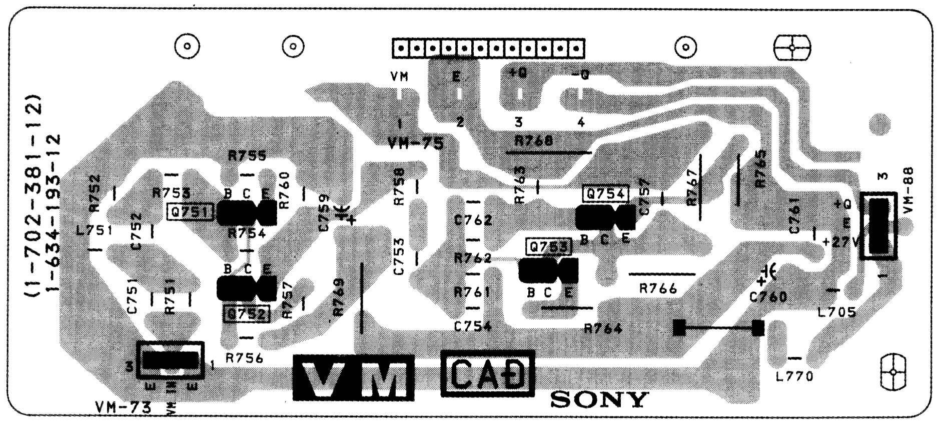
▩ : Pattern from the side which enables seeing.
▨ : Pattern of the rear side.

- C BOARD -

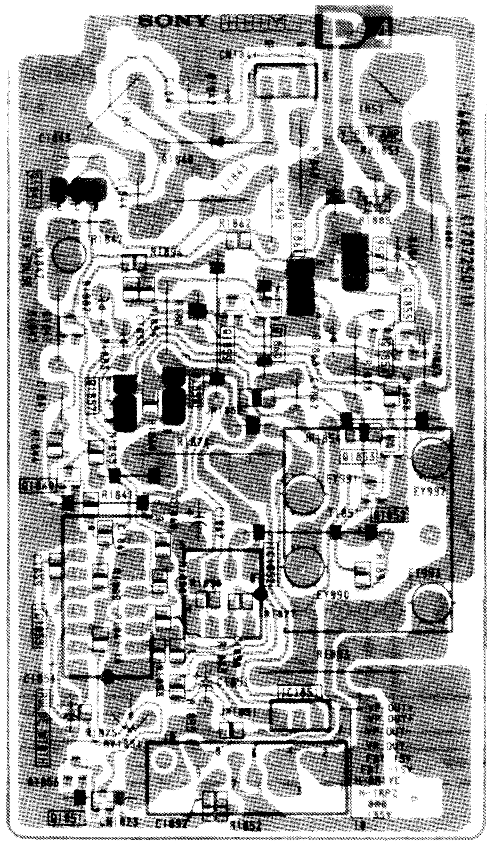

CAĐ
SONY
C
SCRN
RV701
RV702
RV703
RV704
J701
R724
R709
R721
R722
R725
R728
C716
C720
R734
L704
C710
R705
C708
C707
C-71
C-81
C-82
200V
G1
G2
H1
H2
Q703
Q704
Q702
Q706
Q707
Q709
Q710
Q708
Q705
R713
R712
R706
C703
R739
R720
R731
G.DRIVE
B.DRIVE
A/C
GND
R
G
B
12V
C-72
1-638-389-12


B-:SSAE2B<A29>-Đ4.
CN1823 10P :B-TO-B
VP-OUT+ 1
VP-OUT+ 2
VP-OUT- 3
VP-OUT- 4
FBT 15V 5
FBT -15V 6
H-ĐRIVE 7
H-TPRZ 8
E 9
135V 10
TO Đ BOARD CN0523
C1851 470 16V
IC1851 MC78L05A 5V-REG
C1854 47
R1863 180k RN:CHIP
R1853 47k RN:CHIP
C1858 1000p CH:CHIP
R1898 330 :CHIP
IC1853 SN74LS221 V-PIN-ĐRV
R1861 10k :CHIP
R1873 82 3W :RS
C1892 0.033 :CHIP
R1852 47k :CHIP
Đ1856 ĐAN202K
Q1851 2SC2412 INVERT-1
C1859 1000p CH:CHIP
R1875 22k RN:CHIP
RV1851 22k :RN
+5V
PULSE WIĐTH
R1893 82 3W :RS
C1867 470 16V
-15V
R1895 100k :CHIP
R1877 100k :CHIP
Q1855 2SC2412 V-PIN-ĐRV1
C1860 0.033 :CHIP
Q1854 2SA1037 V-PIN-ĐRV-2
Đ1867 ERA85-009 V-PIN-SW1
Đ1868 ERA85-009 V-PIN-SW2
Q1856 2SB1186A V-PIN-OUT2
Q1861 2SĐ1763A V-PIN-OUT1
L1852 400μH
R1882 1k 1W :RS
C1863 0.16 200V 5%:PP
T1851
R1878 220 1/2W
R1881 220 1/2W
R1899 330 :CHIP
C1861 0.033 :CHIP
Q1860 2SC2412 V-PIN-ĐRV3
Q1859 2SA1037 V-PIN-ĐRV4
Q1858 2SĐ2096 VCC-OUT-1
R1860 68 :CHIP
Q1857 2SB1357 VCC-OUT-2
C1862 10 :BP
IC1852 LM358P VCC-ĐRV
+12V
V-PIN AMP
RV1853 2.2k
R1862 1.8k :CHIP
R1854 10k :CHIP
C1855 0.01 B:CHIP
Đ1883 MTZJ5.6B S-CORRECTION2
R1858 #
R1894 10k :CHIP
Đ1882 MTZJ5.6B S-CORRECTION1
JW1807 15MM
D4
(V-PIN Q P)
C1844 0.047 200V 5%:PT
L1841 3.3mH
CN1841 3P
1 QP-
2
3 QP+
TO VM BOARD CN1830
C1845 0.47 100V :MPS
Đ1840 BA-157GP
Q1841 2SC2958-L
R1848 1.8k 1W :RS
L1843 10mH
R1849 10k 1/2W
R1843 2.2k :CHIP
R1841 33k :CHIP
Đ1841 ĐAN202K
Q1840 2SC2412K
R1847 33 :FPRĐ
R1844 2.2k :CHIP
R1842 10k 1/2W
C1841 0.015 5%:MPS
CN1842 1P
1 15V PULSE
TO Đ BOARD
Ⓩ
-0.3
0.2
-7.2
-7.3
2.8
3.1

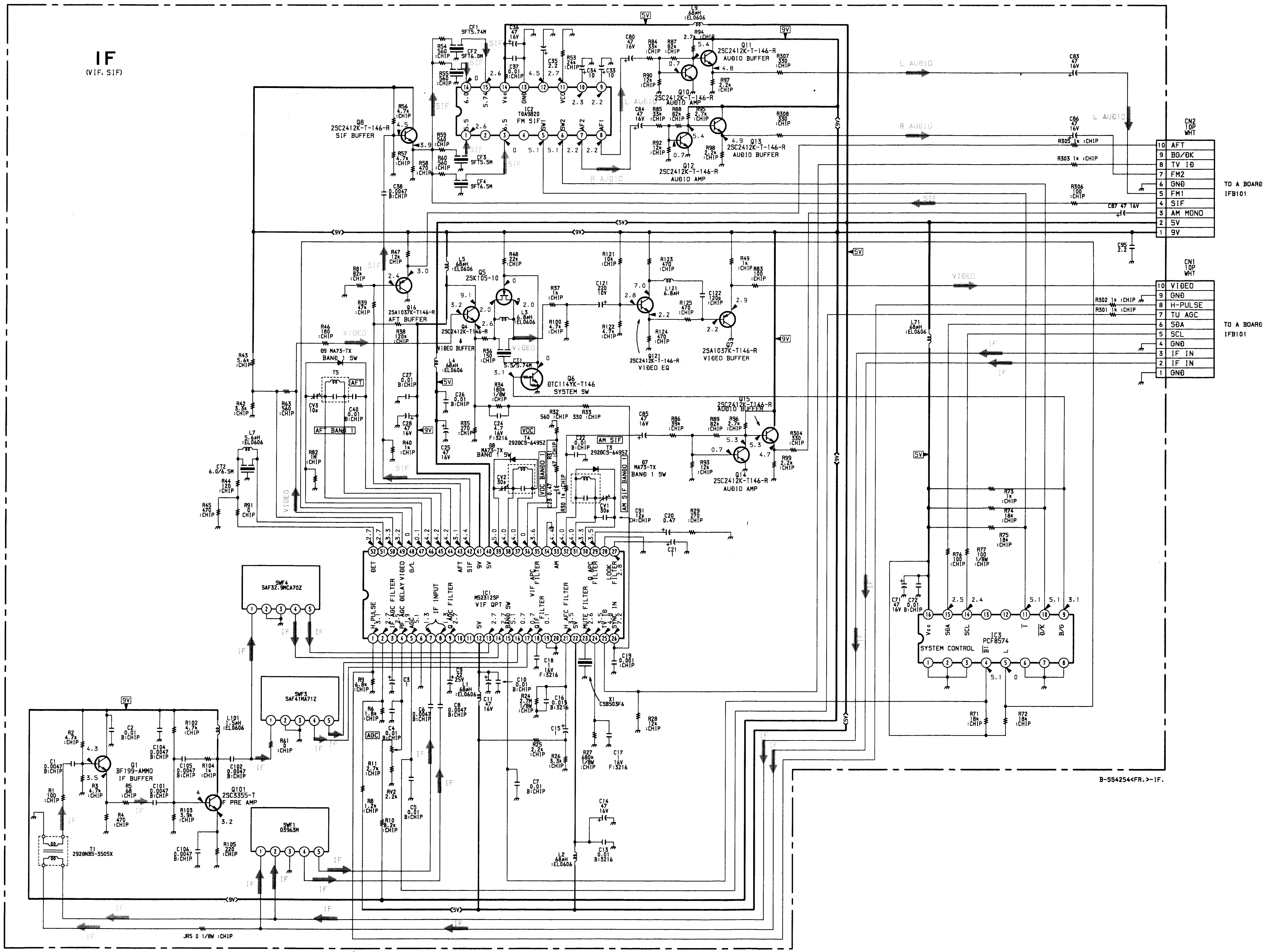
- VM BOARD -


(1-702-381-12)
1-634-193-12
VM-75
VM-73
VM-88
R768
R755
R760
R753
Q751
R754
Q752
R757
R756
R752
L751
C752
C751
R751
C759
R758
C753
R769
C762
R763
R762
R761
C754
Q754
Q753
R767
R765
R766
R764
C761
C760
+27V
L705
L770
VM
E
+Q
-Q
V M
CAĐ
SONY

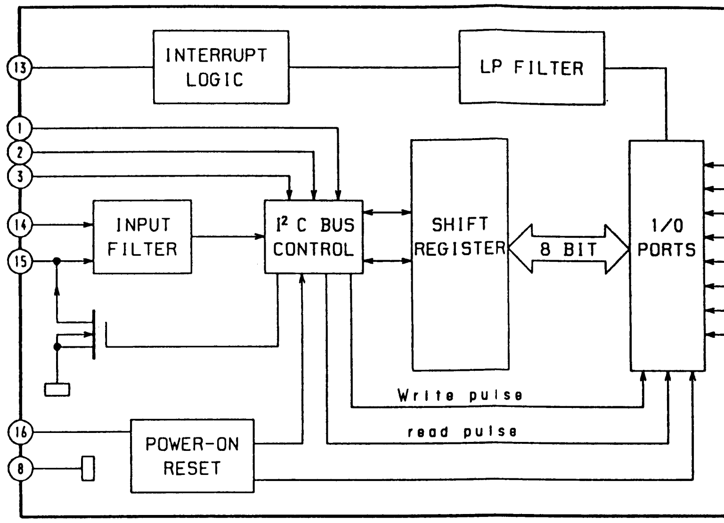
- D4 BOARD -

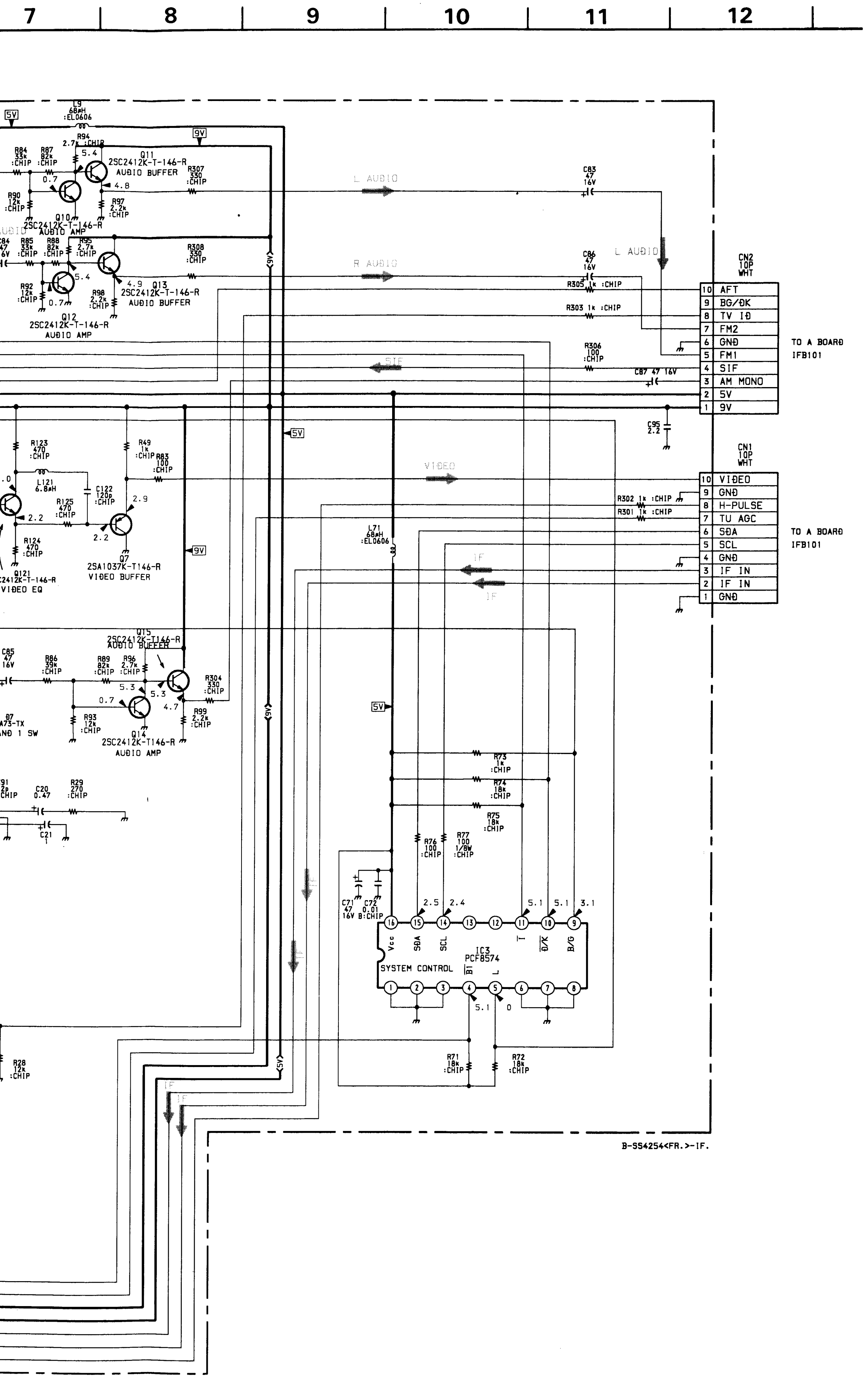

SONY
D4
1-649-528-11 (1707250)
V-PIN AMP
VP OUT+
VP OUT+
VP OUT-
VP OUT-
FBT 15V
FBT -15V
H-TPRZ
135V

IFH389F (French Model)

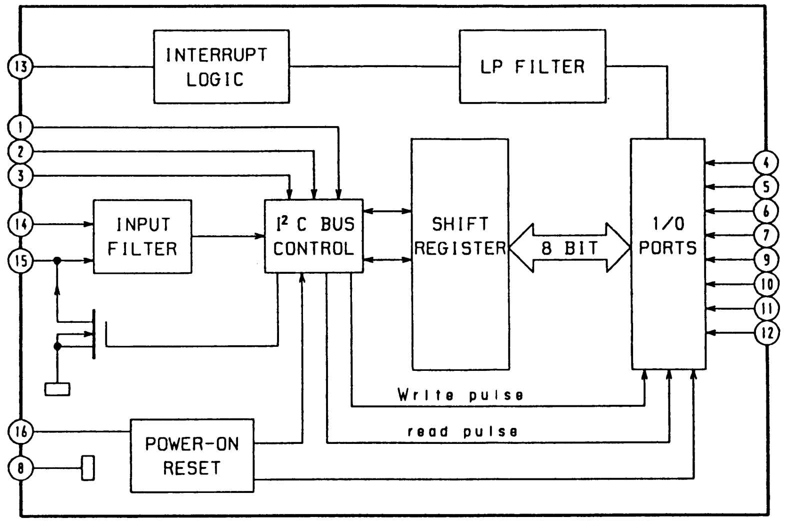

IF
(VIF, SIF)
IC1 M52325SP VIF DPT
IC2 TDA9820 FM SIF
IC3 PCF8574 SYSTEM CONTROL
Q1 BF199-AMMO IF BUFFER
Q101 2SC3355-T IF PRE AMP
Q4 2SC2412K-T146-R VIDEO BUFFER
Q5 2SK105-10
Q6 DTC114YK-T146 SYSTEM SW
Q7 2SA1037K-T146-R VIDEO BUFFER
Q8 2SC2412K-T-146-R SIF BUFFER
Q10 2SC2412K-T-146-R AUDIO AMP
Q11 2SC2412K-T-146-R AUDIO BUFFER
Q12 2SC2412K-T-146-R AUDIO AMP
Q13 2SC2412K-T-146-R AUDIO BUFFER
Q14 2SC2412K-T-146-R AUDIO AMP
Q15 2SC2412K-T-146-R AUDIO BUFFER
Q16 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T-146-R VIDEO EQ
SWF1 G3963M
SWF3 SAF41MA71Z
SWF4 SAF32.9MCA70Z
T1 2920NBS-3505X
X1 CSB503F6
CN2 10P WHT
10 AFT
9 BG/DK
8 TV ID
7 FM2
6 GND
5 FM1
4 SIF
3 AM MONO
2 5V
1 9V
TO A BOARD IFB101
CN1 10P WHT
10 VIDEO
9 GND
8 H-PULSE
7 TU AGC
6 SDA
5 SCL
4 GND
3 IF IN
2 IF IN
1 GND
TO A BOARD IFB101
L AUDIO
R AUDIO
SIF
VIDEO
IF
5V
9V
AFT
AGC
VDC
AM SIF
AFT BAND 1
BAND 1 SW
JR5 0 1/8W :CHIP
B-SS4254<FR.>-1F.

IF BOARD IC3 PC8574 (French Model)

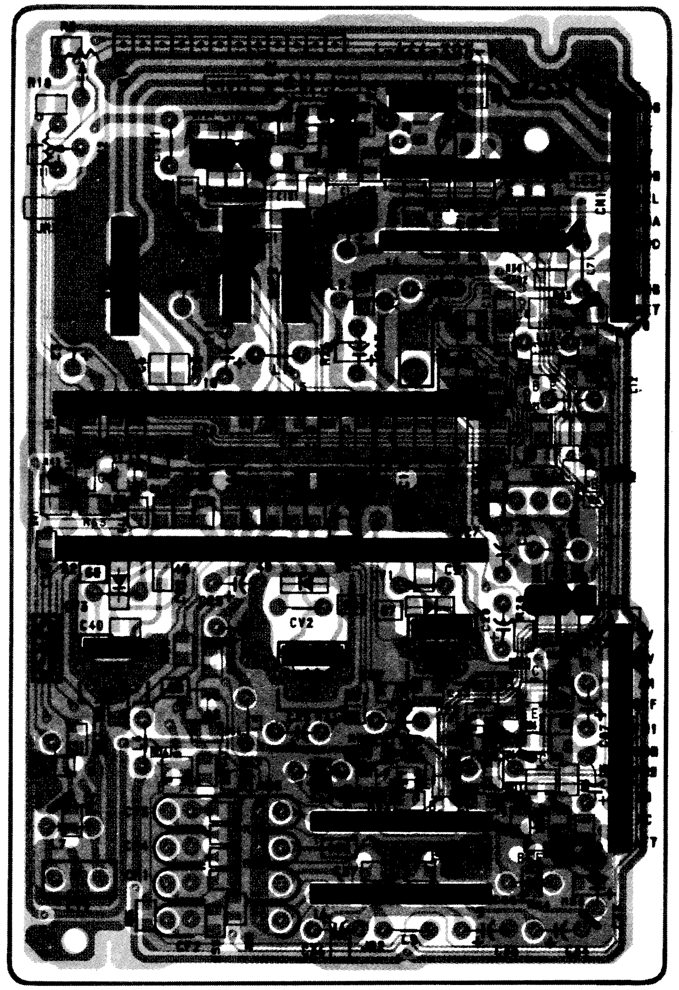

13
1
2
3
14
15
16
8
INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
POWER-ON RESET
Write pulse
read pulse


7
8
9
10
11
12
L AUDIO
R AUDIO
SIF
VIDEO
IF
2SC2412K-T-146-R AUDIO BUFFER
2SC2412K-T-146-R AUDIO AMP
2SA1037K-T146-R VIDEO BUFFER
VIDEO EQ
CN2 10P WHT
10 AFT
9 BG/DK
8 TV ID
7 FM2
6 GND
5 FM1
4 SIF
3 AM MONO
2 5V
1 9V
TO A BOARD IFB101
CN1 10P WHT
10 VIDEO
9 GND
8 H-PULSE
7 TU AGC
6 SDA
5 SCL
4 GND
3 IF IN
2 IF IN
1 GND
TO A BOARD IFB101
IC3 PCF8574
SYSTEM CONTROL
Vcc
SDA
SCL
B/G
D/K
5V
9V
B-SS4254<FR.>-IF.

IF BOARD IC3 PC8574 (French Model)


INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
POWER-ON RESET
Write pulse
read pulse
13
1
2
3
14
15
16
8
4
5
6
7
9
10
11
12

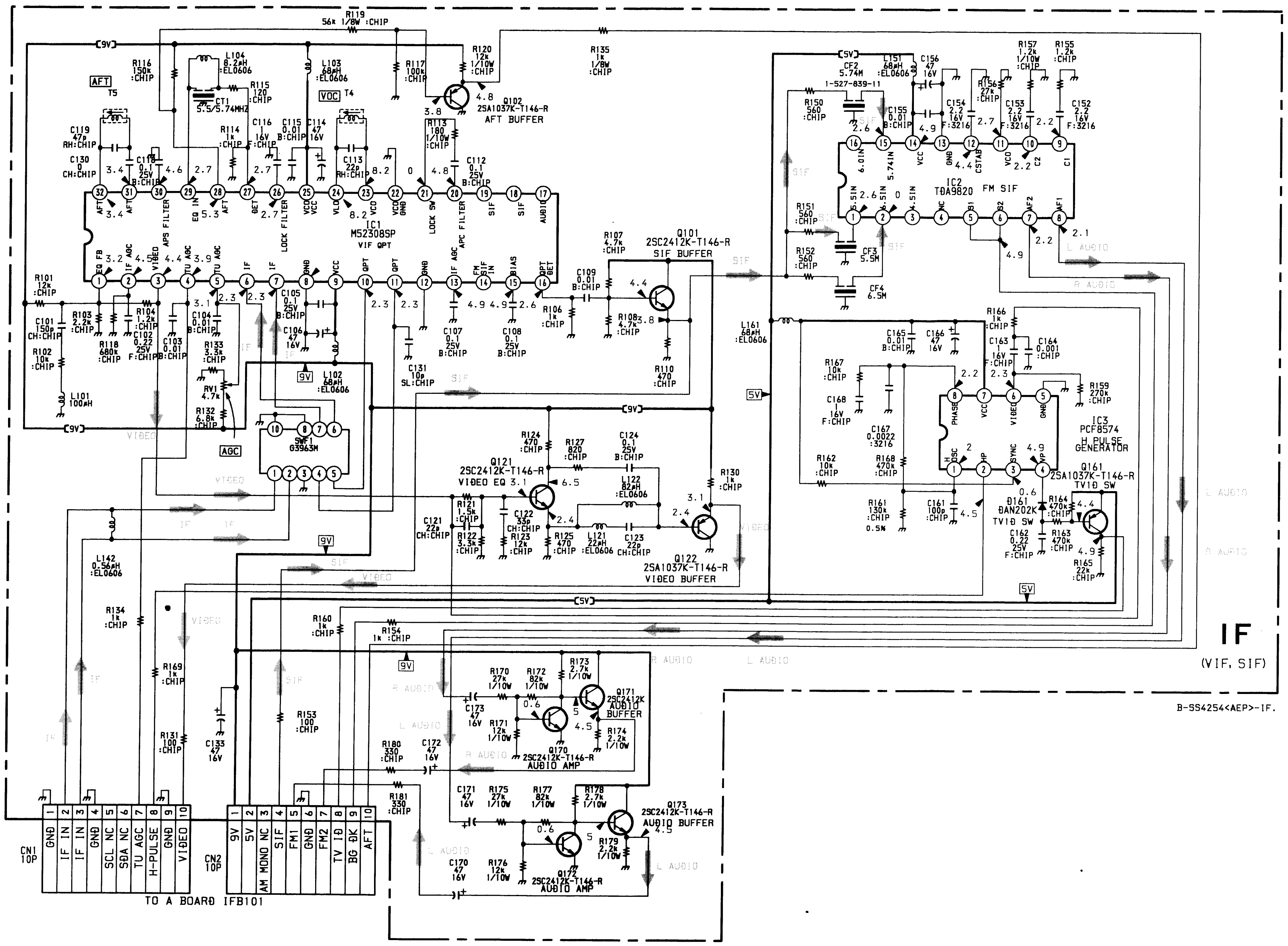
– IF BOARD – (French Model)



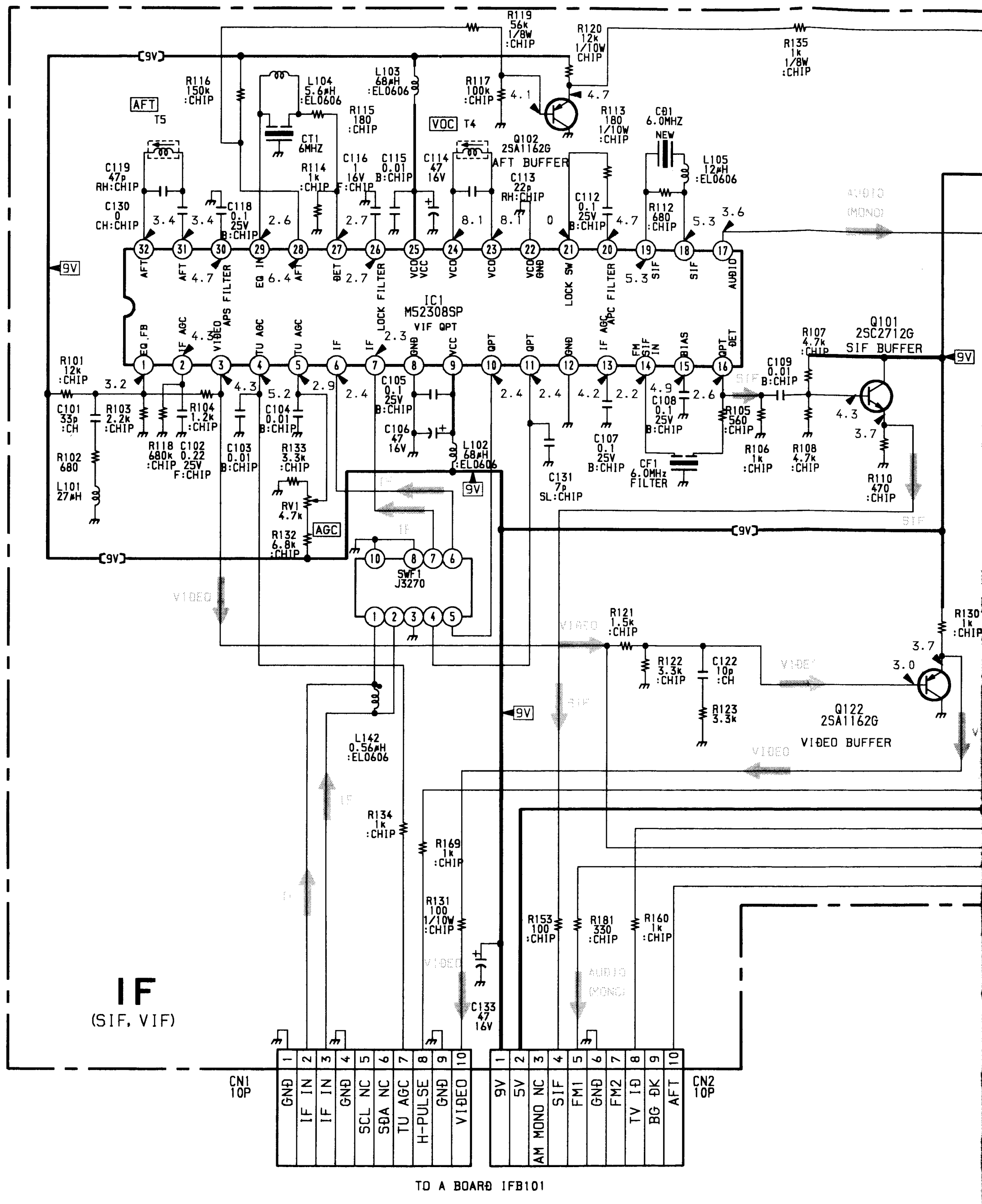
Note :

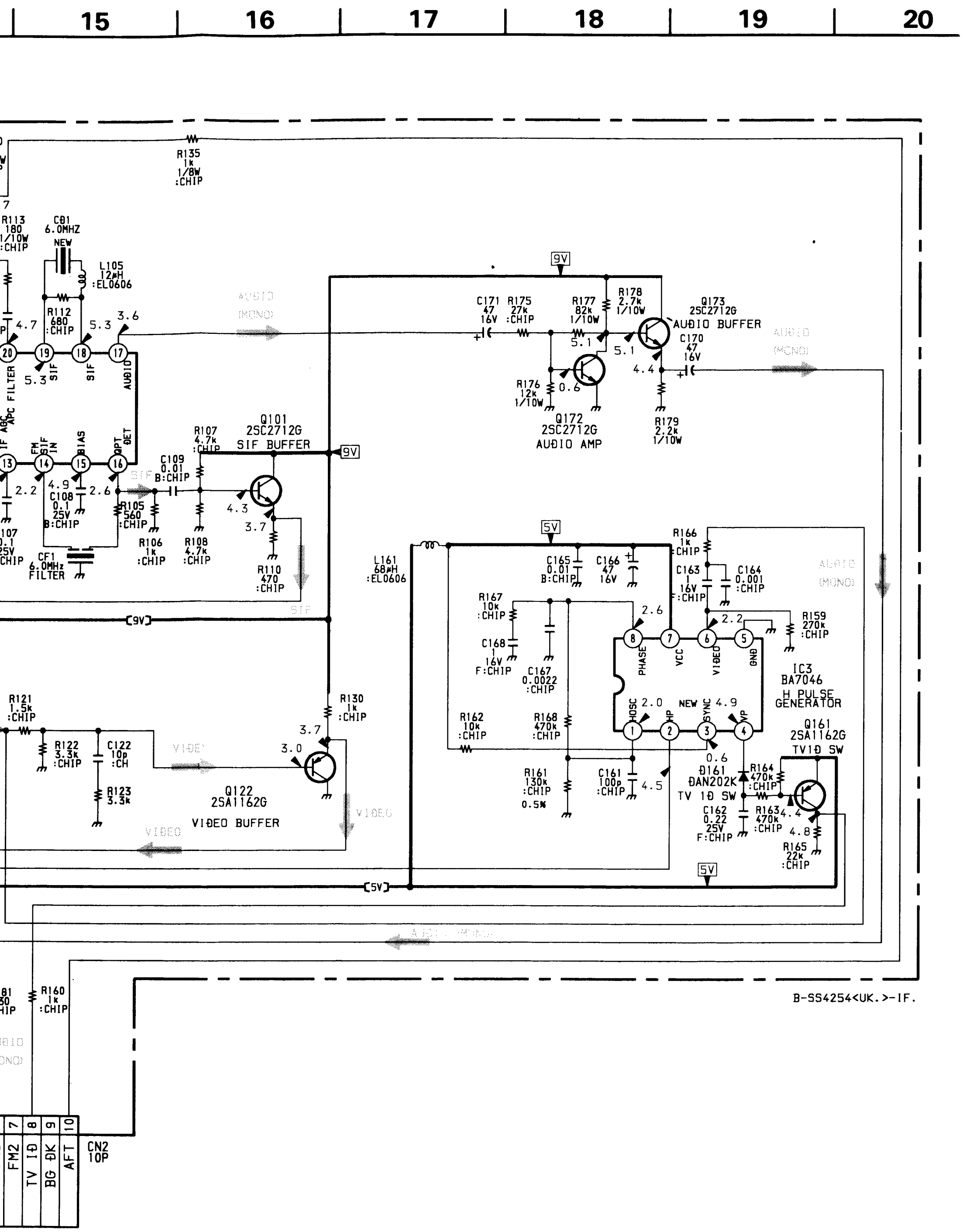
- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

IFH389 (AEP, Italian, Spanish Model)


IC1 M52308SP VIF ØPT
IC2 TDA9820 FM SIF
IC3 PCF8574 H PULSE GENERATOR
Q101 2SC2412K-T146-R SIF BUFFER
Q102 2SA1037K-T146-R AFT BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
Q161 2SA1037K-T146-R TV1Ø SW
D161 DAN202K TV1Ø SW
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
SWF1 G3963M
AFT
VOC
AGC
T4
T5
CN1 10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2 10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV IØ
BG ØK
AFT
TO A BOARD IFB101
IF
(VIF, SIF)
B-SS4254<AEP>-IF.

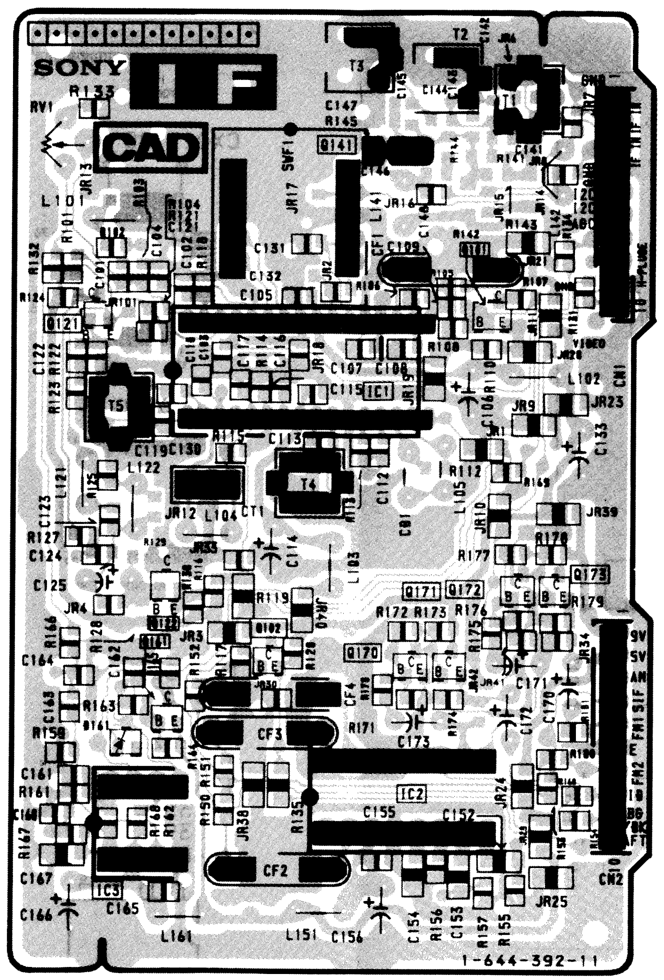
IF395 (UK MODEL)


IC1 M52308SP VIF ØPT
Q101 2SC2712G SIF BUFFER
Q102 2SA1162G AFT BUFFER
Q122 2SA1162G VIDEO BUFFER
SWF1 J3270
CF1 6.0MHz FILTER
AFT
VOC
AGC
T4
T5
IF
(SIF, VIF)
CN1 10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2 10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV IØ
BG ØK
AFT
TO A BOARD IFB101

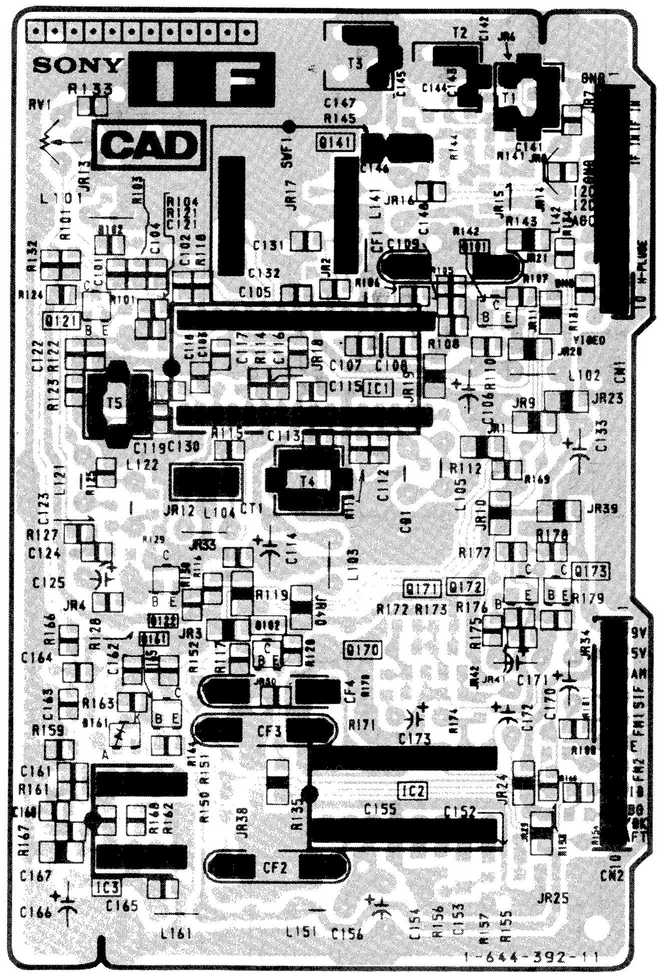

15
16
17
18
19
20
R135 1k 1/8W :CHIP
CB1 6.0MHZ
L105 12μH :EL0606
9V
Q173 2SC2712G AUDIO BUFFER
Q172 2SC2712G AUDIO AMP
Q101 2SC2712G SIF BUFFER
AUDIO (MONO)
5V
IC3 BA7046 H.PULSE GENERATOR
Q161 2SA1162G TV1D SW
D161 DAN202K TV 1D SW
Q122 2SA1162G VIDEO BUFFER
L161 68μH :EL0606
VIDEO
CN2 10P
FM2
TV 1D
BG DK
AFT
B-SS4254<UK.>-IF.

IF [VIF, SIF]

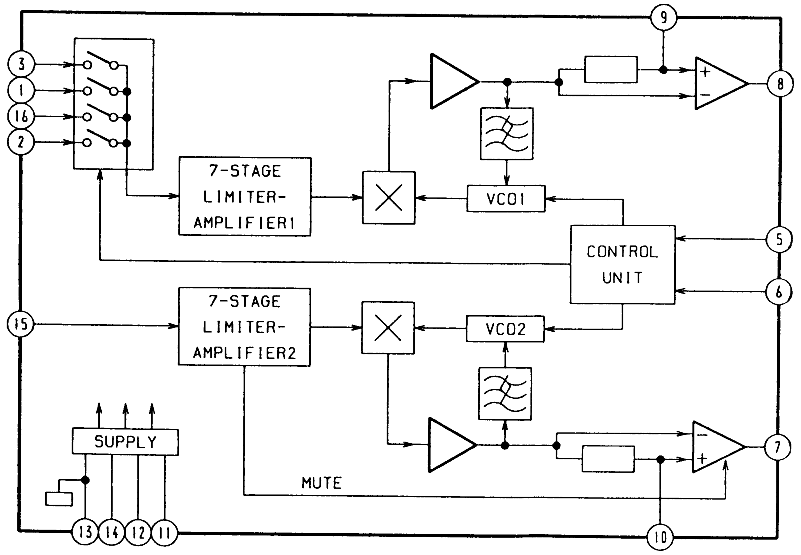
– IF BOARD – (AEP, Italian, Spanish Model)


SONY
IF
CAD
1-644-392-11

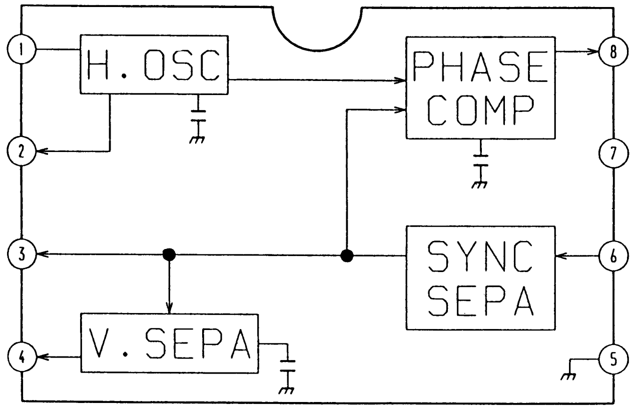
– IF BOARD – (UK Model)


SONY
IF
CAD
1-644-392-11

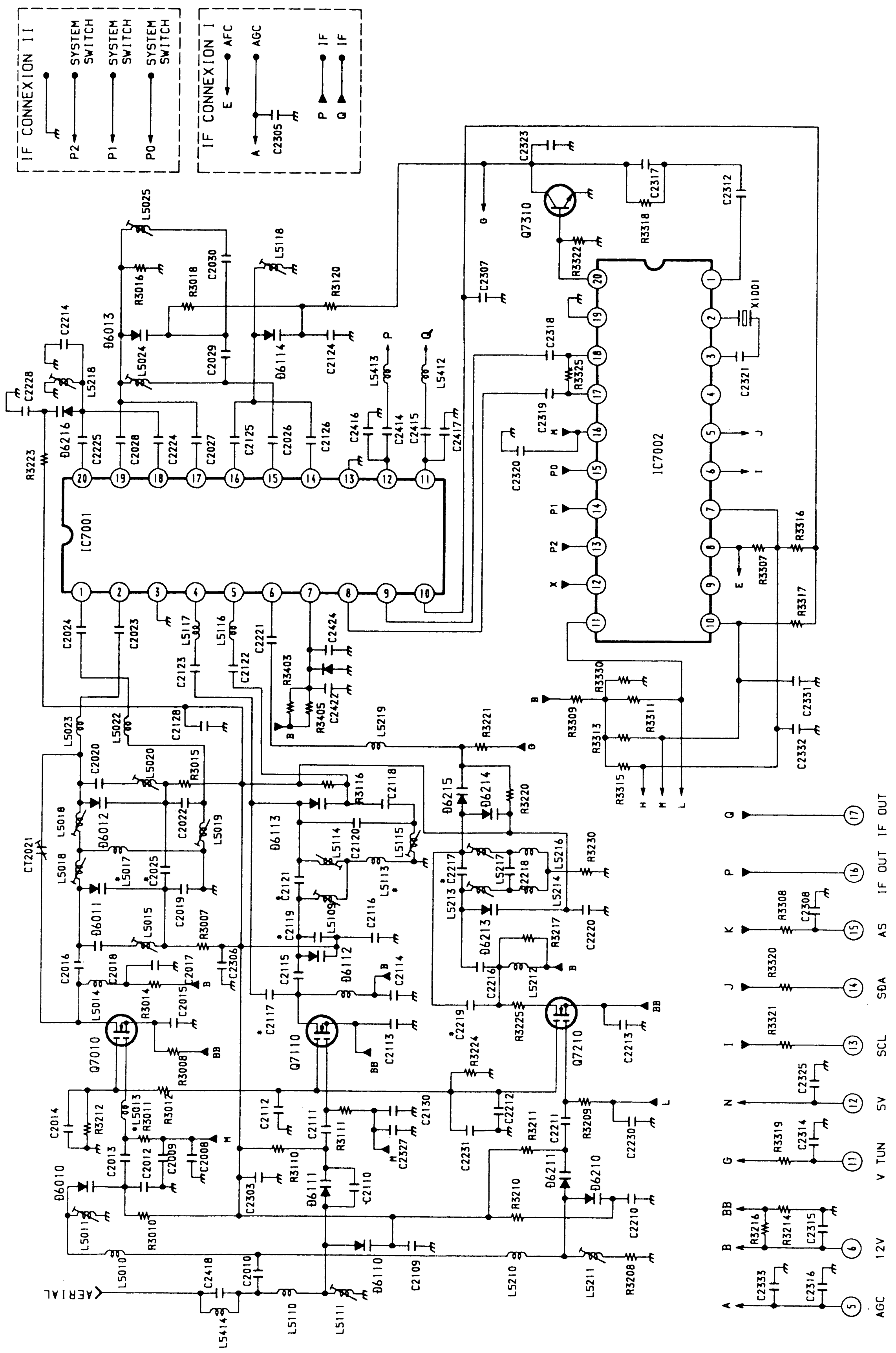
IF BOARD IC2 TDA9820 (AEP, Italian, Spanish Model)


7-STAGE LIMITER-AMPLIFIER1
7-STAGE LIMITER-AMPLIFIER2
VCO1
VCO2
CONTROL UNIT
SUPPLY
MUTE
1
2
3
5
6
7
8
9
10
11
12
13
14
15
16

IF BOARD IC3 BA7046 (AEP, Italian, Spanish, UK Model)

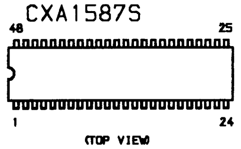

H.OSC
PHASE COMP
SYNC SEPA
V.SEPA
1
2
3
4
5
6
7
8

5-4. SCHEMATIC DIAGRAM OF TUNER
A BOARD TU101 UV916H

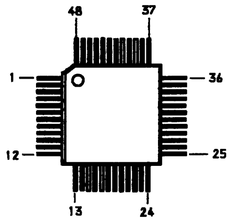

IF CONNEXION II
SYSTEM SWITCH
P2
P1
P0
IF CONNEXION I
AFC
AGC
IF
E
A
C2305
P
Q
IC7001
IC7002
Q7010
Q7110
Q7210
Q7310
X1001
AERIAL
17 IF OUT
16 IF OUT
15 AS
14 SDA
13 SCL
12 5V
11 V TUN
6 12V
5 AGC

5-5. SEMICONDUCTORS

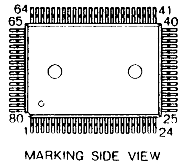
CXA1545AS
CXA1587S


48
25
1
24
(TOP VIEW)

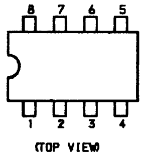
CXD2018Q


48
37
1
36
12
25
13
24

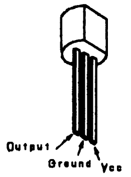
CXD2024Q


64
65
41
40
80
1
25
24
MARKING SIDE VIEW

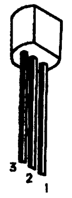
LM358D
LM393P
LM358P
TDA2822M
TDA4605-3
TEA2114
μPC358C
μPC393C
X24C16P


8 7 6 5
1 2 3 4
(TOP VIEW)

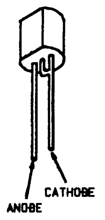
MC78L08ACPRP
MC78L12ACPRP


Output
Ground
Vcc

NJM78L05A
NJM78L05F
NJM78M09FA



RC7809FA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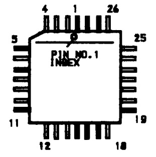
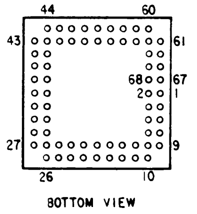
CATHODE

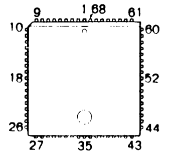
SBX1610-11


PIN NO.1 INDEX
4
1
26
5
25
11
19
12
18

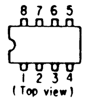
SDA30C162-GEG


44
60
43
61
68
67
1
2
27
9
26
10
BOTTOM VIEW

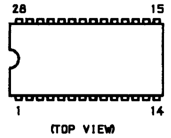
SDA5273-B14-GEG


9
1
68
61
10
60
18
52
26
44
27
35
43

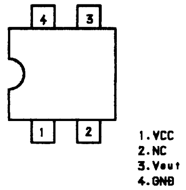
SDA9085


8 7 6 5
1 2 3 4
(Top view)

SDA91872X-GEG
SDA91883X-GEG
TDA6612

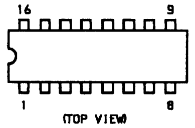

28
15
1
14
(TOP VIEW)

SFH617G-1

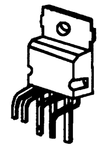


1.VCC
2.NC
3.Vout
4.GND

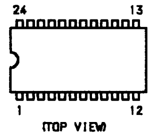
SN74LS221N
TDA466A/V2
TDA9160/N2


16
9
1
8
(TOP VIEW)

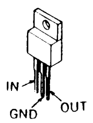
TDA2052
TDA8138
TDA8179S



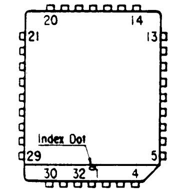
TDA8443B
TDA9145/N1


24
13
1
12
(TOP VIEW)

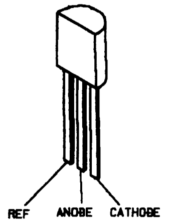
TEA7605



TMS27PC010A-15FML


20
14
21
13
Index Dot
29
30
32
4

TL431CLP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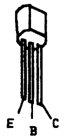
ANODE
CATHODE

BF199



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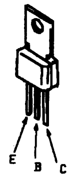
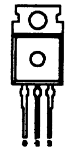


BUZ91A-E3155



DTA124EK
DTA144EK
DTA144TK
DTC114EK
DTC124EK
DTC144EK
2SA1037K-R
2SA1162-G
2SC1623-L5L6
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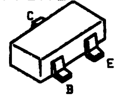
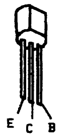
2SC2413KQ



JA101-Q
JC501-Q-AMMO
2SA733-K
2SA1091-O
2SC1890A-D
2SC2551-O



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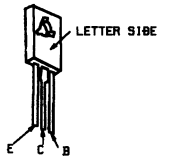
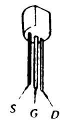
2SC2688-LK


LETTER SIDE
E
C
B

2SA1837



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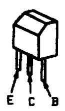
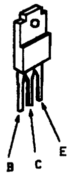
2SD774-34



2SB1186A
2SC3298B-Y
2SD1763A



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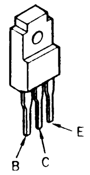

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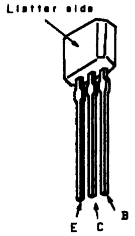
Letter side
E
C
B

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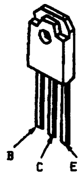

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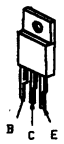

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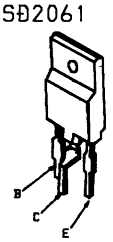

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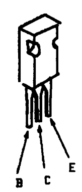

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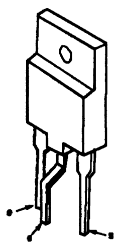

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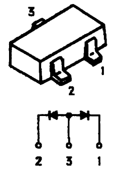

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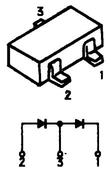

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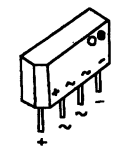
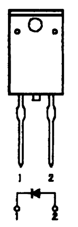


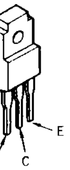
D5L60



4-34
58
4-34

86A
98B-Y
63A

93



35-HFE

27-01

A-P
2

1

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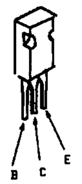

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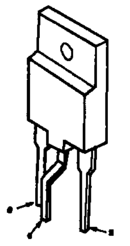

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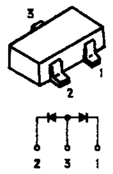

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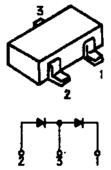

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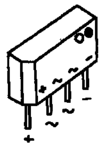

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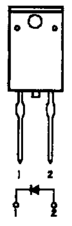

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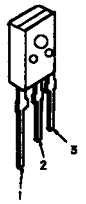

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RGP02-20EL-6394
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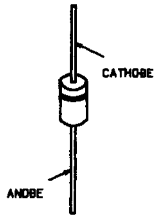
RU3AM


CATHODE
ANODE

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R2K-V1
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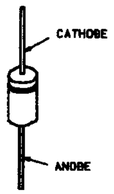
CATHODE
ANODE

ERA85-009
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MTZJ-T-77-13C
MTZJ-T-77-15A
MTZJ-T-77-2.2A
MTZJ-T-77-3.6A
MTZJ-T-77-30B
MTZJ-T-77-33C
MTZJ-T-77-39C
MTZJ-T-77-5.6A
MTZJ-T-77-5.6B
MTZJ-T-77-7.5A
MTZJ-T-77-9.1
MTZN-1013
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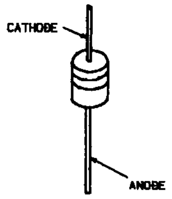
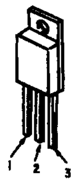
RD5.6ES-B1
RD5.6ES-B2
RD6.2ES-B2
RD7.5ES-B2


CATHODE
ANODE

ESAB92-02



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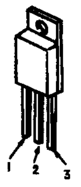
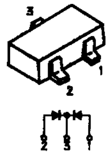
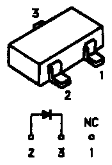


MA152WK



MA3030-H (TK)
MA3039H-TX
MA3047L-TX



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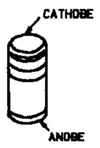
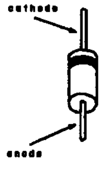
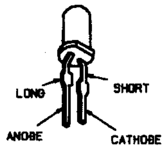

CATHODE
ANODE

RGP02-17EL-6433


cathode
anode

LD201VR


LONG
SHORT
ANODE
CATHODE

SECTION 6

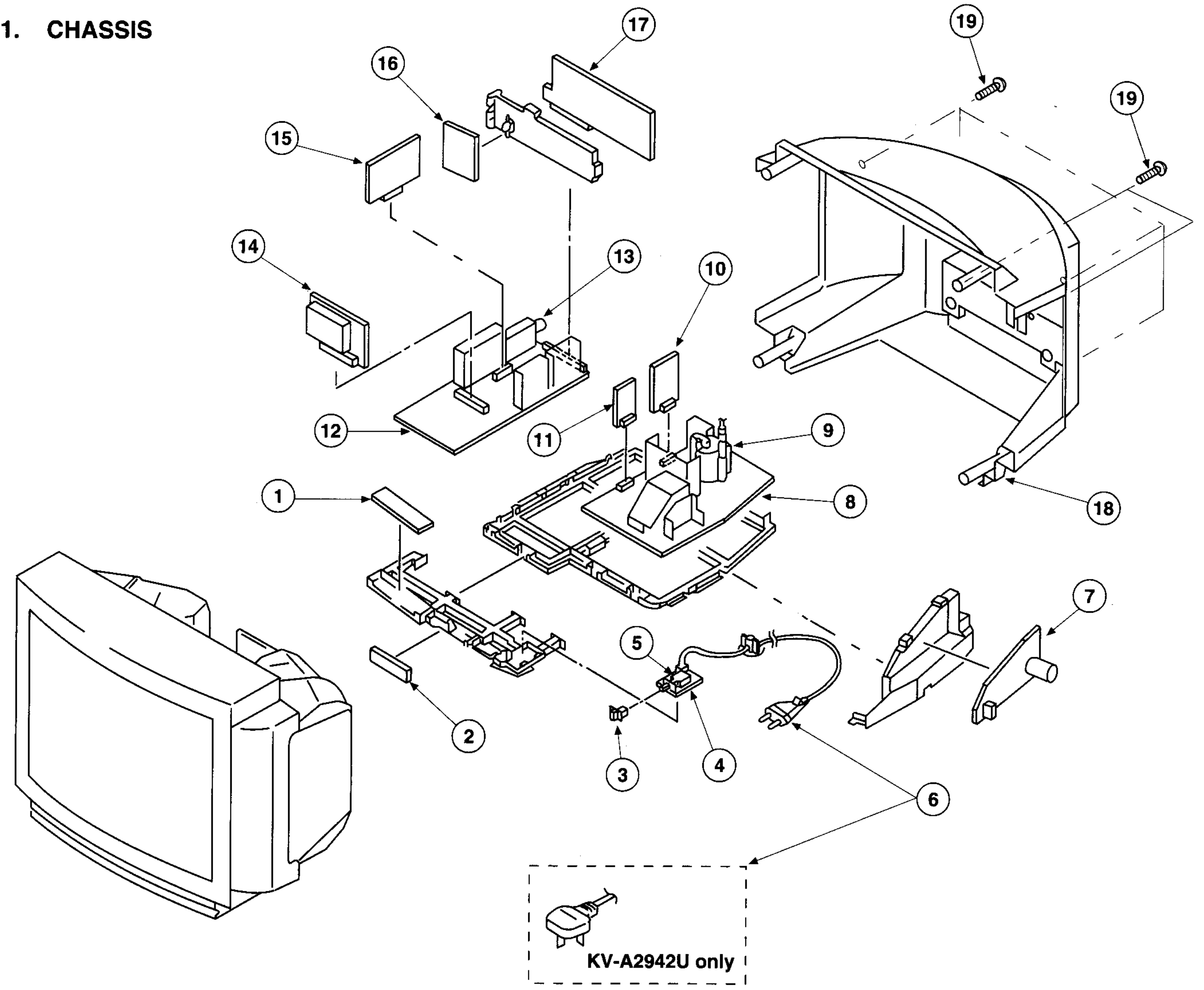
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

6-1. CHASSIS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KV-A2942U only

REF NO	PART NO	DESCRIPTION	REMARK
1	*1-648-314-11	H1 BOARD	
2	*1-652-942-11	H2 BOARD	
3	[illegible]	[illegible]	
4	*1-648-312-12	F1 BOARD	
5	[illegible]	[illegible]	
6	[illegible]	[illegible]	
7	*A-1624-018-A	F2 BOARD, COMPLETE (KV-A2941A/A2941D)	
	*A-1624-036-A	F2 BOARD, COMPLETE (KV-A2941B/A2943E/A2941K/A2942U)	
8	*A-1642-097-A	D BOARD, COMPLETE	
9	[illegible]	[illegible]	
10	*A-1640-109-A	D5 BOARD, COMPLETE	
11	*A-1642-102-A	D4 BOARD, COMPLETE	
12	*A-1632-218-A	A BOARD, COMPLETE (KV-A2941A/A2941D/A2941K)	
	*A-1632-222-A	A BOARD, COMPLETE (KV-A2941B)	
	*A-1632-221-A	A BOARD, COMPLETE (KV-A2943E)	
	*A-1632-192-A	A BOARD, COMPLETE (KV-A2942U)	
13	1-693-185-11	TUNER (UV916H) (KV-A2941A/A2941B/A2941D/A2943E/A2941K)	
	1-693-184-11	TUNER (U944C) (KV-A2942U)	
14	*A-1635-023-A	M2 BOARD, COMPLETE	
15	*A-1630-249-A	A3 BOARD, COMPLETE (KV-A2941A/A2941B/A2941D/A2941K)	
	*A-1630-252-A	A3 BOARD, COMPLETE (KV-A2943E)	
	*A-1630-219-A	A3 BOARD, COMPLETE (KV-A2942U)	
16	*A-1649-009-A	K1 BOARD, COMPLETE	
17	*A-1651-064-A	J BOARD, COMPLETE	
18	4-202-510-11	COVER, REAR	
19	4-039-358-11	SCREW (4X16), (+) BV TAPPING	